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THE VALUE OF THE ROENTGEN RAY METHOD IN THE DIAGNOSIS AND CONTROL OF TREATMENT OF TUBERCULOSIS*

G. E. RICHARDS, M.D.†
TORONTO, ONTARIO, CANADA

In venturing to speak on the subject indicated by the title of this paper, one is at once confronted by two very obvious facts:

First, the subject is an enormous one and could not possibly be properly dealt with in the short space of a single address.

Next, and perhaps more formidable still, the literature which already exists upon this subject is so vast and deals with its every aspect so thoroughly that it is quite impossible to say anything new or original upon it and yet although we think we are thoroughly familiar with the great contribution which roentgenology has made towards the eluci-

dation of the various problems presented by pulmonary tuberculosis, scarcely a week passes in which some new aspect of this most diverse problem is not brought to our

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†Dr. Richards is Associate in Radiology University of Toronto, and Director, Department of Radiology, Toronto General Hospital.

attention, throwing light upon some previously uncertain point, opening up some new avenue of approach, or pointing the way to new possibilities in diagnosis or treatment.

The problem presented to the profession as a whole is a very complex one, partly medical, partly sociological, partly economic, but everywhere of absorbing interest. No doubt much of the interest and enthusiasm aroused is due to the great advances which have been made towards the conquest of one of the great plagues of human history and to the conviction that we have it in our power to make the conquest complete. It is always interesting to have a part in a winning battle.

To the roentgenologists who have had the good fortune, as many of us have had, to grow up with our specialty and see the truly remarkable and diverse directions in which it has proved to be of value, there is a profound sense of satisfaction in the knowledge that in regard to tuberculosis, roentgenology has made a contribution second to none, and has very materially assisted in achieving the favorable results which have been obtained in the mastery of this disease.

TUBERCULOSIS OF CHILDHOOD

It is obvious that the real hope for any future success in the ultimate control of tuberculosis must depend upon discovering the disease in the child and treating or isolating him for the protection of the rest of the community and a very extensive literature already exists on this subject. How important this aspect of the work actually is, is well known to all Public Health Officers, and specialists in tuberculosis work. It is not necessary to do more here than briefly refer to it.

"During 1929, 1930 and 1931, 16,042 school children in Detroit¹ have been tuberculin tested. These represented 67 per cent of the enrollment in these schools. Thirty-two per cent of the high school pupils and 19 per cent of the grade pupils showed a positive tuberculin reaction. Three thousand four hundred and ninety-nine X-ray films were taken of the reactors, 0.4 per cent of the high school students and three in 11,216 grade school pupils were found to have the adult type of tuberculosis. This is usually a fatal form of disease in children unless detected early and adequate and prompt treatment given. Furthermore, these cases are often spreaders of tuberculosis and should be excluded promptly from school. The finding of these cases warrants the effort and expense made to find them. In addition, however, there were 4.6 per cent with the childhood type of tuberculosis in the high schools and 3.5 per cent in the grade schools. These cases

are not infectious to others and will usually overcome their disease if their condition is known and they are given proper care and supervision. It is very important that they be separated from the source of infection. Frequently the finding of a tuberculous child in the school, will, if followed up, lead to the diagnosis of tuberculosis in some other members of the family."

In speaking on this subject, Dr. Henry D. Chadwick² refers to the work done by the Massachusetts Department of Health. In the examination of one hundred thousand school children they found tuberculosis of the childhood type represented one and one-half per cent of positive cases and three and one-half per cent of suspicious cases. Of the adult type of pulmonary tuberculosis only one case was found in every three thousand two hundred children examined. In a group of four thousand college and high school students, one case was found in every four hundred and sixty, and he thinks this would be a rather low estimate, since the group studied was a selected group.

It is interesting to observe from these figures that there is a steady and continuous rise in the incidence of tuberculosis as age increases.

Dr. H. W. Hetherington³ working in Philadelphia, found only three instances of open tuberculosis in more than four thousand children, but this number he also found increases as the age limit is raised and among one thousand four hundred and twenty-five children, between the ages of fifteen and nineteen, apical tuberculosis was found in twenty-two instances, or one and one-half per cent, and of the childhood type in twenty-three instances, or one and three-fifths per cent. Thus there are 3 per cent of these children requiring some kind of special care.

If such figures may be taken as fairly representative of the situation existing in the country as a whole, we are provided with an estimate of the prevalence with which the disease exists in children of school age. Such surveys have proved to be of incalculable value and may become in the future an essential function of Health Boards in most of our cities. The work is of special importance because it forms the fundamental background of the entire problem. But it is to be noted that without roentgenology this work could not be carried on—certainly not in its present form, nor with anything approaching its present accuracy. In most of the centers where this work is being car-

ried out on a large scale only two examinations are now called for—a Von Pirquet test and X-rays of the chest. In this case only the expense prevents the use of X-rays routinely in every examination conducted, but where expense must be considered X-ray films may be made only where the Von Pirquet is positive.

ADULT TUBERCULOSIS—EARLY DIAGNOSIS

There is probably no phrase which has been worked harder than that which stresses the importance of early diagnosis; nor is there any field in medicine more difficult or more fraught with pitfalls. And whether we like it or not, this responsibility rests upon the medical profession and is steadily increasing in difficulty as our knowledge of disease increases.

It is probably not too much to say that the chief difference between the medical practise of the past and that of the present and especially of the future, is that the former dealt with established disease processes and gross lesions, whereas the latter deals with, or will deal with, the earliest possible stages of disease and may never see the gross manifestations with which our predecessors were familiar; and since such an outcome is distinctly within our reach, it is worth a very considerable effort to attain such a degree of skill and judgment as to enable us to recognize these earliest stages. In no disease is this of greater importance than in tuberculosis.

And so it is very disappointing when a clinician makes a sweeping attack upon radiologists generally, because of an asserted tendency to go to extremes in the matter of early diagnosis.

Some years ago a medical paper was published entitled "The over-diagnosis of tuberculosis"⁴ in which the writer attacked radiologists especially, and if my memory is correct, he laid down once again the old rule that the only diagnosis of tuberculosis which can be accepted is the demonstration of bacilli in the sputum. I do not know what proportion of the profession would agree to accept such a definition at the present time, nor whether this writer would adhere to that opinion if he were writing today, but from observations which will be recorded a little later, we believe it can be easily shown that such a diagnosis, though undoubtedly conclusive, is at least three and

may be five years, or more, *later than it should have been*. If any defense were necessary it would seem to be infinitely better to suspect, or even to label an occasional case tuberculous and never have the disease develop, than to overlook an equal number of cases until they had reached the stage of open lesions with bacilli in the sputum. Much has been made of the mental suffering of a patient who has been told he is tuberculous when he is not, of the loss of time from work and the other sufferings he endures. One may simply reply to such an argument that everything depends upon how the matter is placed before the patient and what interpretation is put upon the wording of a report, or the interpretation of the films. To perform this function in a manner which will protect the patient without at the same time making of him a chronic invalid, is an example of the practise of the art of medicine, and obviously must be undertaken with tact and good judgment.

We first became seriously interested in the problem of the very early diagnosis of tuberculosis many years ago during routine examinations of probationer nurses prior to their acceptance by our Institution as pupil nurses. Later in association with Dr. A. H. W. Caulfeild, we conducted a series of studies on a number of medical students in the freshman year, and thereafter throughout their course in medicine. These students were a group who volunteered as clinical normals for certain serological studies Dr. Caulfeild was conducting and were young men presumably perfectly healthy. Of a total of seventy-seven examined, three were found to have positive radiological evidences and there were eight in whom some suggestive signs were present. As this work was done in 1921, the technical standards were considerably below those obtaining at the present time.

This work impressed upon us the fact that there are a series of slight pathological changes which may be present in a very considerable number of individuals throughout the community who are apparently in perfect health and have no suspicion of these conditions. These changes may be accurately recorded and recognized in X-ray films long prior to any signs or symptoms which can be definitely labelled tuberculous. In some of these cases the pathological processes never develop and the findings may

be disregarded. In some other cases they slowly progress and ultimately develop into definitely established tuberculous lesions. I submit that if we are to do our full duty as physicians we must be able to recognize this stage of the disease and deal with it,

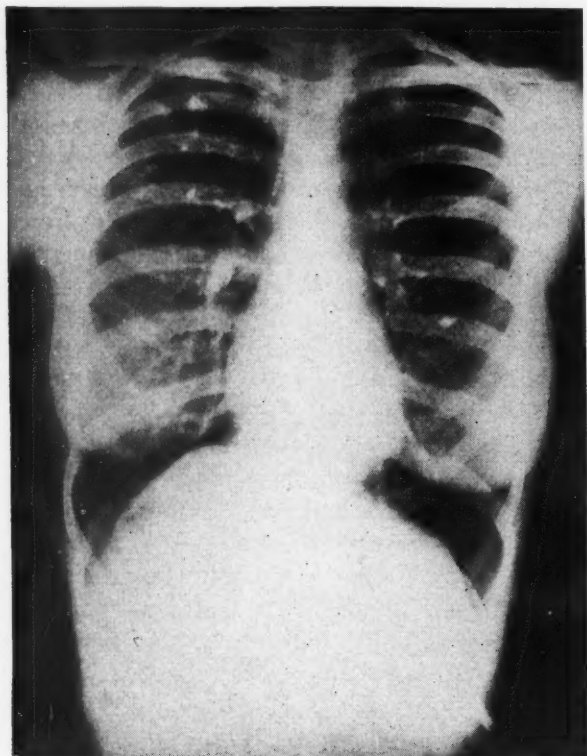


Fig. 1—166,988—Type of case including calcareous and caseo-calcareous glands in hilus regions. Isolated calcific nodes in parenchyma. Pleural thickening over apical caps and stippling. Very exaggerated illustration.

just as we expect to recognize and deal with a host of pre-cancerous lesions.

Since, in the majority of communities, we have not yet reached the point where children are followed through from school age to adult life by periodic examinations, the responsibility for recognizing such a stage of disease rests upon the family physician or the general practitioner who first sees the patient, and this responsibility he must share with the roentgenologist if he is to succeed. A review of case histories of patients such as we are referring to is sufficient to indicate the difficulty of fully measuring up to this responsibility. Some of the cases are entirely baffling, in others there is a sufficiently direct clinical lead to put the physician on the right track. Many of these individuals are simply persons who are physically below par; usually under weight and unable to gain up to normal; people who tire easily; who require more rest than

the average and are unable to stand the strain of a full day's duty as well as their fellows. Ordinary physical examination is negative. There is no elevation of pulse or temperature, no change in the sounds within the chest and therefore very little upon which the finger of suspicion can be placed. The superficial examiner stops at that point, but the careful observer asks for an X-ray study of the chest as well as undertaking the other investigations with which we are not especially interested at the present time. Such a study calls for a pair of stereoscopic films of the highest possible standard of excellence; flat single films are entirely useless in this work. And the interpretation of the films demands a great deal of time, judgment and experience in the examination of films of the chest in all stages and varieties of disease. If you are looking for gross shadows easily visualized you will be disappointed, since here we are on the borderland of disease, and gross lesions have not yet developed.

In a typical case illustrating most of the points, we find the hilus shadows are increased, usually more on one side than on the other and there is an associated group of glands, one or more of which show the characteristic evidences of previous caseation with calcification.

Following up from the hylum there is a spray of thickened bronchial trunks extending out towards the periphery of the lung, sometimes terminating in a cluster of tiny calcareous nodules and sometimes having these tiny nodules present along the trunks, producing the appearance known to radiologists as "stippling." If, in addition, there are a few isolated calcific nodes further out in the parenchyma where lymphatic glands do not normally exist, and especially if these also present the appearance of irregular calcification, we feel certain of our ground (Fig. 1).

Frequently in these cases, the pleura over the apex of the lung is thickened and visible. Attention was first directed to this thickening of the pleural cap by Van Zwahlenburg, and it may have been given more emphasis than it deserved, since the pleural cap may be visualized in more than 35 per cent of all chest films. Nevertheless, we believe that a definite thickening (apart from the mere visualization of the pleura) is of considerable importance and should not be en-

tirely disregarded as a diagnostic sign. It is frequently associated with thickening of one or other of the interlobar pleuræ, the most common being that between the right middle and lower lobes.

Taken singly none of the above findings are to be considered of any great importance, but if most, or all of them are present, we believe they are deserving of very careful consideration. If, with these X-ray findings, there is a clinical picture such as outlined earlier, we feel justified in a diagnosis of a pre-tuberculous combination which should be treated as such with the greatest care. One expresses the belief, with all respect to his memory, that many of Weir Mitchell's patients were of this type, and fundamentally tuberculous. One would give a great deal to be able to go back a few years, taking with him a modern X-ray plant and conduct a series of investigations in a Weir Mitchell clinic. Whether there be any truth in this suggestion no one can say at this time, but certainly his method of treatment by rest, forced feeding and isolation, would be exactly the right method today just as they were then.

Such cases should be followed carefully for several years, and, if this is done, without at the same time making a chronic invalid of the patient, nothing but good should result and ample evidence can be brought forward to prove that many individuals would be saved from developing into definitely tuberculous infections.

It is an interesting fact that in a number of cases which have been followed in whom a picture somewhat similar to that which has been outlined, progressed from this pre-clinical stage to an open lesion, the X-ray findings and Caulfeild's inhibitive reaction both became positive at about the same period of time, both examinations being conducted independently. The length of time this requires obviously varies within such wide limits as to make it impossible to state a rule or even to strike an average, but is frequently from three to five years. Many never develop; some, no doubt, take much longer and have not been recorded, but three to five years represent observed cases from the time a pre-clinical picture was recognized until a lesion could be demonstrated which could be definitely labelled tuberculous.

At this period of the pathological pro-

cesses which are taking place, we are in a stage which is distinctly pre-clinical and in a field where the X-ray examination is the only reliable guide, unless serological tests become exact and reliable. A recent writer,⁵ himself a clinician, has put this so well that I take the liberty of quoting his words. "We have passed from the age of Laennec to the age of Roentgen. A stethoscope is still a very useful instrument but limited in its application and not an instrument of precision. Auscultation bears about the same humble relation to X-ray vision today as percussion did to auscultation twenty years ago. A stethoscope leaves half of our chest problems untouched and only half settles the other half. It can find tuberculosis, but it cannot, except rarely, find early tuberculosis and can never find earliest tuberculosis. It can find tuberculosis but cannot rule out tuberculosis either early or late. It cannot demonstrate pathological changes and cannot follow at all accurately the progress of disease or of healing. All the questions we need to ask about the lesion, extent, stage, type, cavitation, fibrosis, involvement of pleura or diaphragm are answered much more clearly by the X-ray film." The words are those of an outstanding clinician who has been broad enough to keep pace with the progress which has been achieved and frank enough to admit the facts. Eighty per cent of all the information necessary to a correct diagnosis may be obtained from well made stereoscopic films of the chest and their correct interpretation. The other 20 per cent is usually found in the history, rather than by the use of standard methods of physical examination.

EARLY TUBERCULOSIS

We have emphasized the importance of recognizing the pre-clinical stage and in doing so fully realize that we are leaving ourselves open to criticism. Such criticism will be quite justifiable if the method is applied indiscriminately but not otherwise, and no one is more anxious than the roentgenologist that his findings and opinions shall be applied with sound common sense. The position of the roentgenologist is halfway between the general practitioner and the chest specialist or sanatorium. He is thus in a position to be of tremendous value in recognizing the very earliest manifestations

of the disease. How urgent this early recognition is may best be shown by studies from the statistics of sanatoria.

According to McPhedran, "Examination of the post-discharge and follow-up records of such patients as have moderately advanced lesions reveals that approximately 50 per cent are dead five years after discharge from the Sanatorium."

But in the past the factor which has been the most deciding if not the only influence in bringing patients to the doctor and the Sanatorium has been the presence of clinical symptoms or an actual breakdown in health. "Of nine hundred and two pulmonary cases, 7.7 per cent were admitted for treatment within three months of the apparent onset as determined by the history, 11.4 per cent between three and six months and of the entire number 33.8 per cent within one year. A few of these had advanced disease and all had active tuberculosis."⁴

Is it hoping for the impossible to look forward to a time when such cases would be recognized long before the period at which the individuals in this group actually were, and so saved from the consequences and the mortality which this group and all other similar groups suffer? The answer is in the negative at present and the dream can only become a reality if routine physical examinations at periodic intervals become the rule and if such physical examinations include a careful study of the chest by stereoscopic films. Such an examination will reveal tuberculous lesions long before any physical examination can detect them in the form of soft flocculent shadows which may present so slight a change in density as to be invisible on a flat film and therefore difficult and sometimes impossible to show on a lantern slide or published reproduction. The films must be as nearly perfect as is technically possible and must be studied in proper light stereoscopically. Such a case is illustrated by a patient recently observed. In the original films there were a series of faint cloudy shadows just barely discernible. The patient was beginning to tire easily but had no definite physical signs. After a period of bed rest all evidences of the cloudy lesions had disappeared and the X-ray appearance had reverted to that which has been previously described as pre-clinical. This patient was a perfect example of a Weir-Mitchell type and is being kept under supervision but has

no indication of recurrence. It is not necessary to ask the question "What would have been this girl's history if her physician had been governed by a system of therapy which demands the demonstration of bacilli in the sputum?" May we not now go one step further and not even demand clinically active symptoms and physical signs? In our present state of knowledge and with the facilities at our command, we should be able to do so.

Physical signs may only become definite in the hands of a skilled observer when the disease is comparatively advanced and to the less skillful this means a much more advanced stage of disease.

Case 1.—Chief complaint, pains in back. Dr. Harvey, Detroit, asked for films of back and chest. Patient did not have this done until his return to Toronto. These revealed rather extensive bilateral apical involvement. In the hands of one of our best men no physical signs could be elicited. Later they became manifest and sputum became positive.

Case 2.—In this case the patient was sent to Sanatorium for treatment of pleural effusion. In December, 1926, pleurisy all cleared up and patient was ready to return home and to her baby. As a matter of routine, chest stereos were made and this revealed a soft lesion on the opposite side, not detectable by physical examination even after its presence had been demonstrated by the films. Again a double tragedy was averted: (1) The development of her own lesion to a serious point, and (2) the almost certain infection of her baby. Which brings us very naturally to a discussion of the question of contacts.

CONTACTS

It is doubtful if any greater responsibility ever rests upon the medical profession than that of searching out the course of the infection in every case of tuberculosis which comes under their observation. Sometimes this is a difficult and thankless task, but one may have the silent satisfaction of knowing that by succeeding in this matter he has averted more human tragedy than he is likely to do in any other single effort in his life.

Or. Ogden of Toronto related, and has published, an example which he uses to illustrate the urgent importance of careful history-taking and also the risks of contacts.

Case 3.—A patient was brought to the clinic by the Health Department as a contact. His sister was a known positive but they did not live in the same house. On close questioning he denied exposure and his X-ray films were negative. He was dismissed from the clinic. He returned in two years, at which time his chest plates were positive. Dr. Ogden now repeated the question and the patient still denied exposure. Line of questioning—"Did you ever go to see your sister?" "No." This was repeated until the patient replied, "I have told

you five times that I did not." Finally in despair the doctor changed his question and asked, "Did your sister ever come to see you." Reply, "Oh yes, three or four times a week, I had a sitting room and she had not." Equally difficult was it to obtain any history of cough. The patient insisted that his sister had no cough but merely cleared her throat.

If the number of cases in which a baby in the house has proved to be the indicator could be published, it would make a tale of woe almost unparalleled. In a certain case a baby three months old died of tuberculous meningitis. Fortunately the doctor was alive to the situation and the Health Department took charge of the investigation. One by one the members of the family were examined and found negative until only an uncle who lived in the house remained. He refused indignantly to be examined until forced to come. His films revealed extensive bilateral tuberculous lesions. He went to the Sanatorium in 1925.

His wife was kept under observation as a contact and on first examination was negative. Fifteen months later, however, these became positive. Thus we have, in this case, a latent period of fifteen months. The latent period, however, may be comparatively long, one of our records being up to twelve years under careful observation.

CONTROL OF TREATMENT

Since volumes have been written on this subject it is not to be expected that one can do more in the short space of a single paper than refer briefly to certain aspects of treatment. In this phase of the subject the roentgen-ray has become not only indispensable but the most reliable single guide at all stages. Indeed it is extremely doubtful if the brilliant surgical work at present being carried out could ever have been developed without the roentgen-ray or could be carried on at all in its absence.

The control of treatment of tuberculosis consists essentially in control of fever, of cavity, or of hemorrhage. The greatest advance of the past decade has undoubtedly been our knowledge of the importance of rest to the lung and our means of putting the lung adequately in a position of physiological rest. The time honored method was by bed rest for the whole patient and in many types of lesion this is still all that is necessary.

Whether a lesion can be absorbed by bed rest alone depends at least partly upon the duration and location of the lesion but even here surprises happen and numerous examples could be shown of large lesions with cavity formation undergoing complete resorption by bed rest only.

But while bed-rest may still be regarded as the standard method of treatment it bids fair to be looked upon as antiquated in the

very near future in favor of some one or other of the numerous surgical methods which have recently been brought to such a stage of perfection.

The immediate results of the application of these methods has been a striking reduction in the death rate. In this respect you have a brilliant example in your own community where the deaths at the Herman Kiefer Hospital have been reduced in a three year period from 35 per cent to 21 per cent and at the Maybury Sanatorium from 18 per cent to 10 per cent. A fair share at least of this improvement is due to the fuller use of the various methods of collapse therapy.

As has already been pointed out it is extremely doubtful if this work could ever have been developed without the use of X-rays and most certainly it could not be carried out in the brilliant manner as it is at present apart from the routine application of the X-ray method, which not only provides extremely accurate information for the surgeon before operation, thus enabling him to plan his operation in detail, but it also provides a constant check following operation and throughout the entire period of convalescence.

The lessons which have been learned as a result of this have been numerous and diversified. To many observers one of the most interesting has been the more complete understanding of the mediastinum and its contents. Not only have we learned much regarding the freedom with which the mediastinum may become displaced but this has proved to be a source of important diagnostic significance in a variety of conditions.

In addition there has been forthcoming confirmation during the lifetime of the patient of the accuracy of the work of Nitsch who, in 1911, described weak spots in the mediastinum based upon anatomical studies. Nitsch described two of these weak spots, one anteriorly in the position of the thymus gland, at which point he found merely a network of soft tissue like tissue-paper through which an inflated balloon could be forced with moderate pressure. The second of these weak spots he describes as being in the lower posterior part of the mediastinum.

We have had the opportunity of observing examples of the first variety but up to the present have not seen the second, although it must be moderately common in

studies with the fluoroscope during artificial pneumothorax.

When such a herniation occurs it appears on the *opposite side* to the pneumothorax, bulging through the weak space above referred to, and can be seen easily during in-

described certain triangular shaped areas which he called paravertebral triangular areas. One gathers from his paper that these had been under discussion as far back as 1878. Most of us have had more or less difficulty with them in X-ray interpreta-

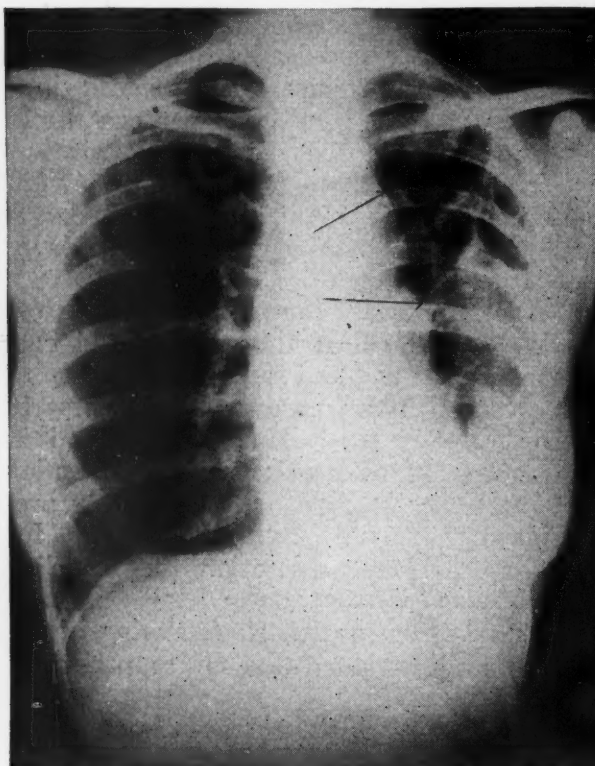


Fig. 2—26,016—Full inspiration. Herniation through mediastinum as indicated by arrows.

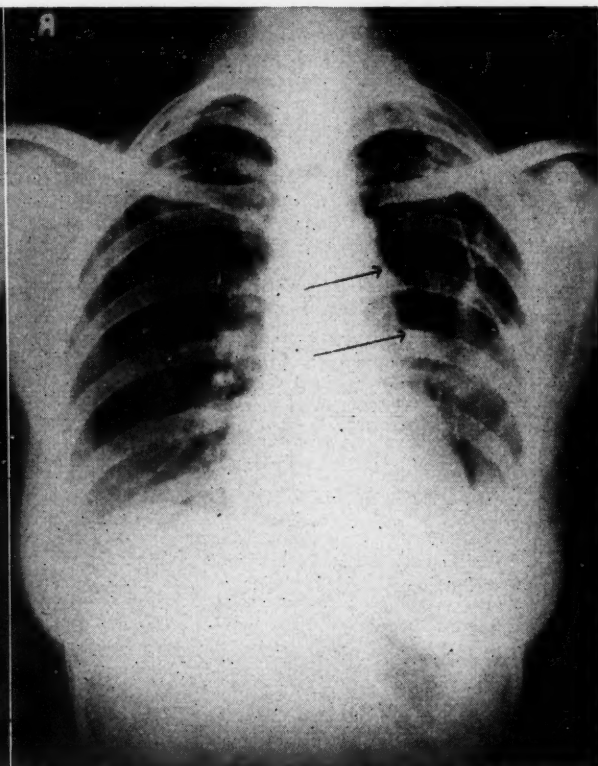


Fig. 3—26,016—Previous case during expiration. Herniation has disappeared. On fluoroscopic examination this herniation could be seen fluctuating with respiration as illustrated.

spiration, diminishing during expiration. Those which we have observed arise from a broad base and have presented a moderate bulge. The characteristic features are the contraction and expansion coincident with respiration.

One especially interesting case is a herniation *towards* the side of the pneumothorax leaving some speculation as to the mechanism by which it is produced. On fluoroscopic observation this area fluctuates with respiration and may be studied with the greatest ease. Films are shown here during full inspiration and full expiration but on account of some fluid in the pleural cavity are not so clear as one might hope (Figs. 2 and 3).

It is a matter of great interest to observe that in a single paper in 1911 Nitsch described these weak spots though he did not actually observe the phenomenon of herniation as we are now able to do and he also

tion, and have usually regarded them as areas of pleural thickening or localized effusions. With the introduction of the use of lipiodol the nature of these triangular shadows has become established and we now know they are areas of atelectasis associated with bronchiectasis and are not tuberculous. The collapsed lung comes to occupy an astonishingly small space in the base and is always an entire lobe. Its collapse is compensated for by a remarkable expansion and rotation of the remaining portion of lung. The observations have been confirmed by lipiodol, verified at operation and produced experimentally in animals (dogs) and the finding of such a shadow may now be taken as pathognomonic evidence that the disease is bronchiectasis (Figs. 4 and 5).

Other lesions which have resulted from the use of X-rays during the many aspects of the surgical treatment of tuberculosis have been numerous. Prominent among

these have been an understanding of cavity formation hitherto impossible. The control of cavity formation and hemorrhage, which is possible by the means now available, is so perfect as to be described as a specific form of therapy. You have re-

an acute disease, to be differentiated from typhoid fever, the understanding that if the disease was miliary the outcome would surely be fatal. And the profession is only very slowly coming to realize that this only describes one phase of the disease, and that

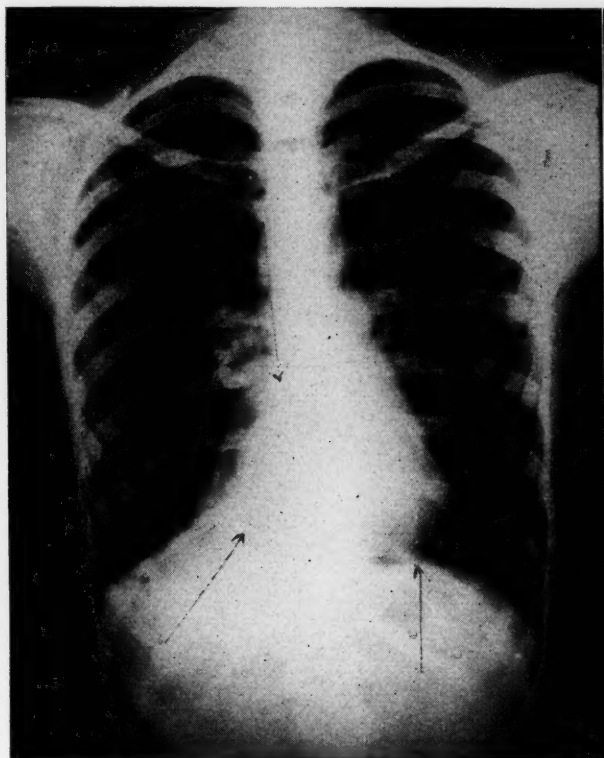


Fig. 4—253,968—Triangular basal shadows in both bases. On the right side the shadow is more clearly shown and is quite definite. On the left it is more curved and is seen through the left border of the heart.

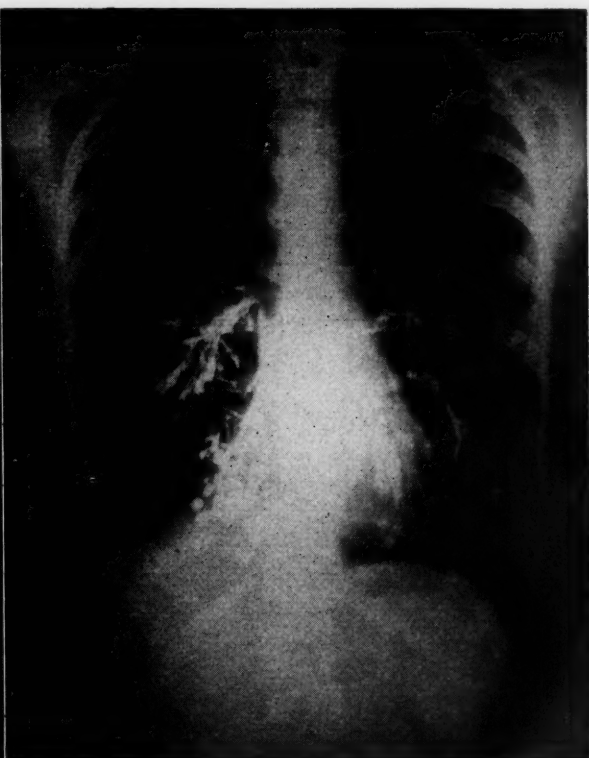


Fig. 5—254,754—Previous case following lipiodol injection. It is clearly seen that the whole of the right main bronchus terminates in bronchiectatic areas on the right side within the triangular zone. A similar condition also is present on the left side, clearly shown in illustration and in the original films.

cently had this subject fully dealt with by Dr. Evans in his paper before the Detroit Academy of Medicine (April 25, 1932), and there is nothing to be gained by repeating this phase of the subject. In some Sanatoria the number of patients who do not receive pneumothorax is limited only to those in whom it is physically impossible and in these it is supplemented by other means of securing collapse or rest. "The first great advance after Hippocrates that made the modern treatment of tuberculosis was the Sanatorium method; the second is the surgical collapse of lungs."

MILIARY TUBERCULOSIS

The free use now being made of the X-ray method of studying pulmonary disease has resulted also in a new understanding of miliary tuberculosis. Most of us were taught that miliary tuberculosis was

in addition to being an acute disease with a very bad outlook, miliary tuberculosis may also be an extremely chronic disease and may heal completely. Here again we have to deal with a pulmonary infection providing the clinician with no help in the way of physical signs and the lesions can only be discovered by means of an X-ray study. How many periods of ill health with slight fever, subsiding in the course of a few days and dismissed by the patient or his doctor as a mild attack of the "flu" have actually been concealed tuberculous infections we have no means of knowing. But it is a fact that a close study of the histories of cases of chronic miliary tuberculosis reveals such periodic febrile attacks and these correspond to periods of activity of the disease, each of which the patient has been able to control. We have records of such cases in the films of which it is not difficult to

recognize crops of lesions of different density corresponding to different periods of activity of the disease. Such histories may go back for such long periods as to be impossible to trace until, when the patient is finally examined and the diagnosis made,

zations, one feels like suggesting as a good general rule, "In anemia and fatigue in a youthful patient examine the chest for some form of tuberculous infection; in middle life or later, examine the stomach for carcinoma."

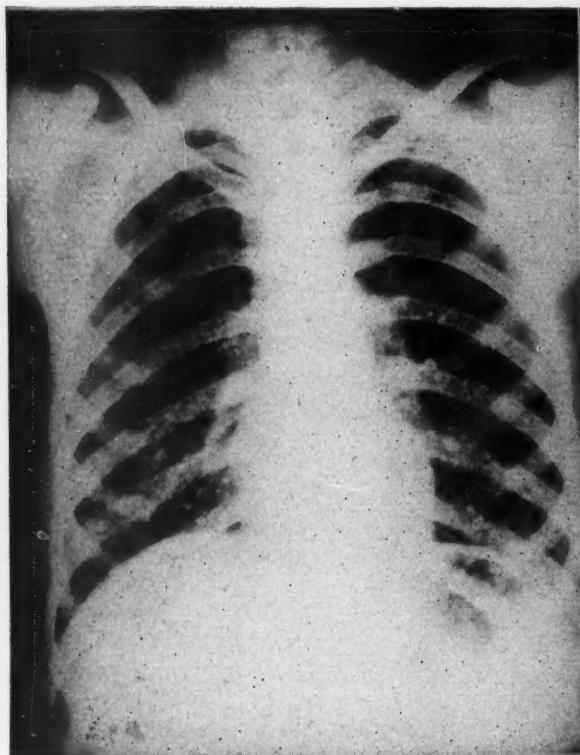


Fig. 6—240,448—Case of miliary tuberculosis referred to in the text.

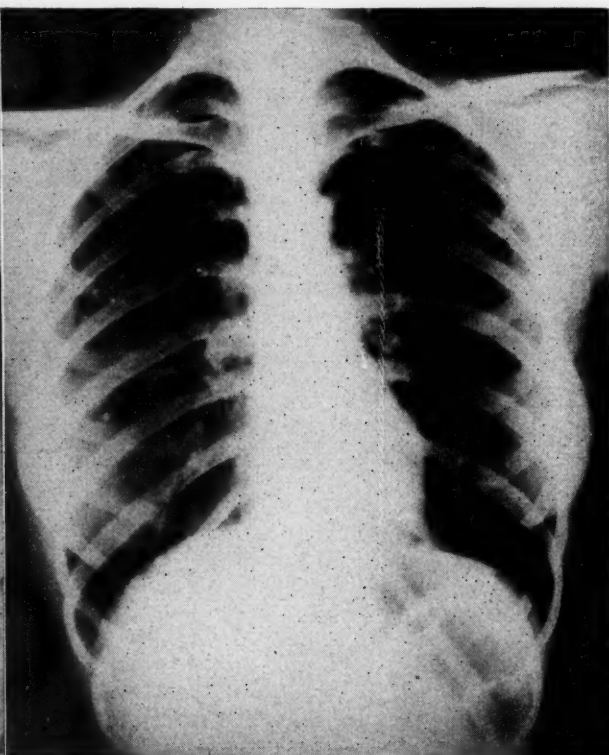


Fig. 7—133,297—Multiple discrete scattered calcific nodes regarded as a phase of miliary tuberculosis (see text).

the lung fields are completely filled with lesions.

In one such patient the outstanding symptom was anemia and the patient had been under treatment for a prolonged period simply for this anemia. The hemoglobin was sixty-five and was accompanied by fatigue and shortness of breath. One wonders to how many physicians such a symptom group would suggest the need for X-rays of the chest? However, it happened that he came into the hands of a physician who noted slight changes in percussion on both sides and referred him for X-rays of the chest. The result is shown herewith (Fig. 6) and needless to say was a surprise to all concerned. These lesions are fairly uniform in density and yet studying the original films one is convinced that they are of long duration and very probably go back through all the years of this patient's period of ill health and slowly progressing anemia.

In fact, in spite of the danger of generali-

This rule was followed in a young woman who was a trained nurse, with the result shown in the next illustration (Fig. 7). Here the lesions were comparatively few and it is debatable whether or not one is justified in classifying them as miliary. Finally, some adenoids were removed, and, on section, were found to be tuberculous. Following this and suitable rest, et cetera, this patient fully recovered and has remained well.

The conclusion we have reached is that miliary tuberculosis is much more common than has hitherto been believed, and that it is frequently chronic. Because there are no physical signs, diagnosis by ordinary means is next to impossible in this stage and can only be accomplished by a wider use of X-rays as a routine means of investigation.

TUBERCULOSIS AND PREGNANCY

Finally, there is the problem of pregnancy in a tuberculous woman. When any physi-

cian is consulted as to the advisability of permitting pregnancy to occur in a tuberculous woman he assumes a serious responsibility. How can he meet this responsibility fully? The patient places her life and safety in his hands and expects from him protection. The answer, we believe, is to be found only in an extremely careful correlation of clinical tests with serial X-ray examinations of the chest over a period of at least two years. If, during two years, the lesion remains unchanged and the patient's condition otherwise indicates inactivity of

the disease, pregnancy may safely be permitted. And we have no more reliable guide as to the activity of lesions than observation by X-ray studies over a prolonged period.

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THE PERIODIC HEALTH EXAMINATION HISTORY TAKING*

C. G. JENNINGS, M.D.
DETROIT, MICHIGAN

The prevention of disease, the preservation of health, is the most exalted and enlightened function of medical science. Preventive medicine presupposes a knowledge of the etiology of disease and of the constitutional, environmental and other factors which predispose to its development.

Until the discovery of the microbic origin of the infections, which directly or indirectly are responsible for more than eighty per cent of disease mortality, a science of preventive medicine was impossible.

The last half century, corresponding to the period of beginning and growth of the knowledge of bacteriology and its related branches, has seen the development of preventive medicine from a mass of superstitions and unproven clinical theories to the positive knowledge of the present day.

The first phase of public health effort, which began about two hundred years ago and lasted almost to the beginning of the present century, was characterized by the use of sanitary authority and the powers delegated by law to the health officer of a community. Dr. Haven Emerson has termed this the "era of environmental health, the phase of sanitary authority." The quarantine of persons infected with, or exposed to the acute contagious diseases, and the abatement of palpable nuisances, were the chief activities of the public health agencies of this period.

The second era of public health work, the phase of public health education, began about 1900. We all are familiar with the activities of this period of the development of preventive medicine. Beginning with the

tuberculosis campaign of 25 or 30 years ago, enthusiastic volunteer health associations specializing in various fields have brought to every individual and household the beneficent messages of tuberculosis prevention, prenatal care, infant and child welfare, venereal prophylaxis, mental hygiene, etc. One by one, as their value was demonstrated, the activities have been taken up and aided by official health agencies, foundations and philanthropic organizations. Gustave LeBon in his work on "The Psychology of Peoples" estimates that the propagation of a worth-while idea requires at least twenty-five years.

A study of the mortality statistics and the incidence of the preventable diseases show most impressively the results of this quarter century of health education. Using approximate figures, the general death rate in the U. S. Registration Area has declined from 20 to 10 per thousand in this thirty years of health education. Life expectancy at birth in the State of Massachusetts increased from 43 to 58 years. In the last fifteen years infant mortality dropped from

*See Editorial, page 116.

100 to 65; the death rate from tuberculosis in the thirty years from 200 to 100 per 100,000 population; diphtheria from 40 to 10; typhoid fever from 40 to 5; diarrheal diseases from 110 to 25. Other acute infections show comparable reductions. Pneumonia and the streptococcus infections among the acute diseases have shown resistance to preventive and curative measures alike.

Such are the results of the era of health education and the exercise of the authority of boards of health in the field of the preventable infectious diseases.

While medical science can congratulate itself on these achievements, there is a dark side to the picture. This dark side is that the health education of the last thirty years, even with the aid of sanitary authority, has failed to check the incidence and death rate of the diseases of the declining period of life.

The death rate of diabetes has increased from 10 to 18 per 100,000 population; cancer from 65 to 85. Cardiovascular diseases have replaced tuberculosis at the head of mortality statistics.

Life insurance experience tells us that while life expectancy at birth has rapidly lengthened in the last thirty years, life expectancy at the age of 40 or 50 years has not increased.

Diabetes, cancer, and the cardiovascular diseases are common to the middle period of life. It may be that the increased incidence of these diseases is due in part to the fact that more people live to reach middle life. The life extension efforts of the last generation have saved the young from the acute infections only to have them succumb to the chronic infections and degenerations of middle age.

It, therefore, seems apparent that the mass instruction and public health efforts of the era of health education are inadequate to prevent the diseases that shorten the declining years of life.

The diseases of later life, aside from the acute infections, have their origin in the constitutional tendencies, personal traits and habits and environmental influences of individuals. Mass teaching of personal hygiene makes little impression upon the mode of life of the average person. To those looking for guidance in health matters the selection, from the multitude of generalities put out by health agencies, of specific infor-

mation for immediate use and adapted to the age and conditions of life of the particular individual is difficult, almost impossible. Health teaching designed to correct bad habits of living, overcome constitutional and temperamental tendencies and give protection from the preventable diseases that menace every period of life, must be personal, practical and adapted to the circumstances of the moment.

Such instruction and advice can be given only directly by physician to patient. This is the logical conclusion that comes from these years of the study and practice of preventive medicine.

It may safely be said that this conclusion has been accepted in principle by health authorities, by physicians and by the public. We have entered upon the third phase of preventive medicine, the era of periodic health examinations.

If LeBon, previously cited, is correct in his estimate of the time required to put over a worth-while idea, about twenty more years must be devoted to the education of the public and the medical profession in this phase of preventive medicine.

The history of the development of the health examination idea is interesting. Systematic health examinations had their beginning in the medical inspection of school children in Sweden in 1832, 100 years ago. The idea gradually spread through several of the countries of Europe. It was taken up with characteristic seriousness in Germany, which country promoted the First International Congress of School Hygiene in 1904. In the United States, Boston introduced the first system of medical inspection of school children in 1894. The early school inspection in this country had for its main object the detection of the acute infections. The Detroit Board of Health adopted school inspection as a disease prevention measure in 1904, during my membership on the Board. The popularity of this action at that time may be judged by an editorial which appeared in one of the daily papers. Speaking of it, the writer said:

"It cost the taxpayer last year \$2,500 for this perfectly useless service, a service that would be ridiculous were it not an abominable and intolerable piece of impertinence."

The interest of parents in the physical well-being of their children has stimulated interest in the examination of the healthy child to promote its proper development and

to guard it from disease. Pediatric specialists have led the van in the practice of this phase of preventive medicine.

Health examinations in adults came later. In 1861 Horace Dobell delivered a series of lectures in London on "The Prevention of the Invasion and Fatality of Disease by Periodic Examinations." This early writing received little attention and no further efforts to extend the teaching were made for many years.

The systematic health examination of adults was first brought forward in this country by life insurance companies financially interested in the longevity of their policy holders. As early as 1893 health examinations were made by one of the New York life insurance companies. This policy has been adopted by many companies and has given to medical science a great mass of statistical information of standards of healthy structure and function. The subject began to attract general attention in the early years of this century. George M. Gould in 1900 wrote of it in the *Journal of the American Medical Association*, and a gradually increasing literature has educated the public to some degree of appreciation of the value of the periodic health examination.

The well known Life Extension Institute of New York was organized in 1913 and has been a potent influence in the propagation of the idea.

The health examinations of employes has become a fixture in many industrial organizations, as well as of students in colleges.

The medical profession has been slow to grasp the meaning of the revolutionary changes in medical practice that have resulted from the work of public health agencies. Absorbed in the work of curative medicine, family practitioners, who make up the great mass of the profession, have neglected seriously to consider what should be their most important function—the preservation of individual health. As a rule patients are seen only in the emergency of developed disease.

Commercial organizations, so-called life extension companies, taking advantage of this neglect and of a growing demand for such service, have exploited an activity that should be the sole prerogative of the medical profession.

Leaders of organized medicine, however, have been alive to the situation and by edu-

cational campaigns are arousing in the profession at large an interest in its opportunity and its duty. The American Medical Association, State and County Societies and other medical bodies in various parts of the country have urged their members, in the public and their own interest, to foster the plan and prepare themselves to carry its message to their communities.

Of unusual interest was the intensive campaign of the Greater New York Committee on Health Examination extending from October 15 to December 31, 1929. Unfortunately, economic conditions since that time have not been favorable to indulgence in what may be considered by many as a medical luxury.

Granting the development of a popular demand for periodic health examinations, who shall make the examination? Will the movement only add another to the medical specialties, still further to encroach upon the field of effort of the family physician? The answer rests with the family physician himself. He is the man most capable to fulfill this function. He has, or should have, the intimate knowledge of the family and constitutional history and of the medical and environmental facts that are necessary to make a proper evaluation of the physical status of his patients and to guide them in ways for the maintenance of health and the avoidance of disease.

The question is, will he do it, or will he, by neglect or half hearted measures, drive his patients into the hands of those who are no more competent, but will take the matter seriously and give the time and attention necessary for the assurance which such an examination should give?

There is nothing in a health examination that a physician competent to practice curative medicine is not qualified to give. It differs in some ways from the examination for established and recognized disease. It is a search for the evidence of pathological tendencies and for unsuspected incipient departures from the normal. It demands a complete medical life history and a painstaking physical examination.

If the family practitioner neglects to cultivate this new field of usefulness, he will lose the opportunity of re-establishing his position as confidential family medical adviser, and of replacing with individual preventive medicine the clientele that has been

lost to him through the encroachment of specialists upon his proper functions and the reduction of preventable disease by public health activities.

I have been asked to consider the subject of history taking in the health examination. From a fairly extensive observation, I am convinced that the importance of a full and accurate history as an aid to diagnosis is not appreciated by many physicians. Too much dependence is placed upon the search for the palpable evidence of disease by physical examination. The preclinical events, the history of onset and progress often will settle the diagnosis of a developed case, which will defy differentiation by physical examination alone. In many cases diagnosis may be made from the clinical history alone. Physical examination is but confirmatory.

Of still greater importance is the medical history in the search for bad habits and conditions of life, pathological tendencies and unsuspected disease in the subject of a health examination.

The detection of disease tendencies and the earliest clinical evidence of disturbed structure and function should be the special function of the family practitioner. As Sir James MacKenzie pointed out some years ago, the study of the beginnings of disease is a neglected field. Teachers of medicine rarely see disease in its incipency. Hospital, clinic and consultation patients give them little opportunity to observe the slight departures from normal that sooner or later may lead to established disease. The student receives no instruction in this field of clinical medicine. In our present curriculum this subject is left for post-graduate self instruction. The periodic health examination gives the practitioner opportunity for such instruction and for research in a most important and a neglected field of clinical medicine.

The physician undertaking this work must give it careful thought and study, and extend his technical methods beyond those necessary to recognize manifest disease. The cultivation of the habit of taking and accurately recording medical histories will make him a better practitioner.

The medical history of a child is relatively easy to obtain. Medical and surgical incidents are few and recent, and the details of illness are readily obtainable from the parents. Constitutional tendencies are revealed in the parents and a better history of

remote family characteristics still are remembered. Home and school habits and environment are easy to investigate. Occupational influences and fixed bad personal habits have not yet complicated the picture.

The medical history of an adult, previously unknown, is more difficult. Remote family history and the details of past diseases have been forgotten. Some may be concealed. The examiner may even meet with resentment for his close questioning. A long, tactful chat with the patient is usually necessary to bring out a full history.

Patients often are unmindful of minor but significant symptoms.

The patient's history should be taken systematically and properly recorded. Health examination forms greatly facilitate this work.

Several forms differing in detail have been developed by various organizations—the American Medical Association, the United States Public Health Service, the Greater New York Committee. The form compiled and adopted by the Public Health Committee of the Wayne County Medical Society has many points of excellence and can be highly recommended. The time consuming questioning of the patient can be simplified by having him fill out the blank at his leisure. This may be checked up and amplified by the examiner at the time of the physical examination.

A full inquiry into the family history and constitutional tendencies of the patient should be made. The older physicians with their scant knowledge of disease studied the patient; the modern physician has studied the disease. Individual preventive medicine demands a knowledge of the morphological, functional and psychological characteristics of the patient; in other words, of his constitution. The periodic health examination will prove a stimulus to the study of this neglected field.

The history examination may be conveniently made in the following order:

Family Diseases

- Longevity
- Paternal or maternal pattern
- Tuberculosis
- Cancer
- Cardiovascular disease
- Vascular accidents—cerebral, cardiac
- Hypertension
- Metabolic diseases—gout, diabetes, obesity
- Anemias
- Insanity
- Epilepsy

Neuroses
Endocrine disorders
Allergic conditions
Addictions

Environmental Conditions

Home conditions and influences.
Occupational conditions.
Hours of work. Character, nightwork, overtime.

Previous History

Diseases of early life—living conditions, school life.
Infectious diseases.
Vaccination and immunization.
Other diseases.
Accidents—surgical operations.

Habits

Food, general character and quality.
Eating habits.
Recreation.
Baths.
Exercise.
Tobacco.
Alcohol.
Tea, coffee.

Present Condition

Head

Mouth hygiene
Teeth
Pharynx and Tonsils
Sinuses
Cough
Pharyngeal and Nasal Secretions
Eyes
Ears

Chest

Cough and Expectoration
Shortness of Breath
Asthma
Palpitation
Pain—thoracic, precordial

Abdomen

Appetite, digestion
Pain—colic
Flatulence, acidity, eructations

Nausea, vomiting
Bowel action
Gall Bladder—jaundice, pain, tenderness, indigestion
Rectal symptoms—pain, bleeding hemorrhoids

Genito-Urinary System

Urinary symptoms, frequency, etc.
Pain
Menstrual history—Obstetrical history
Marital relations
Venereal diseases

Nervous System

Headache
Neuralgias
Paresthesia
Vertigo
Fatigue
Sensitiveness to heat and cold

Bones—Joints—Muscles

Arthritis
Fibrositis, myositis

Endocrine System

Dysfunction

The importance of chronic focal infections in the etiology of the diseases of middle and later life cannot be emphasized too strongly. Careful search for the remote and apparently unimportant symptoms of focal infections should be made. The unmasking of an abscessed tooth, buried infected tonsils or other atria of absorption may prevent the development of a crippling arthritis, a life shortening cardiovascular degeneration, a chronic nephritis or some other serious disease.

The data obtained by the history will point to the fields for special investigation by physical examination, and by laboratory and X-ray studies.

GRIPPAL INFECTIONS: POSTFEBRILE CARDIOVASCULAR DISTURBANCES, USUALLY UNRECOGNIZED

In the opinion of Clarence L. Andrews, Atlantic City, N. J., grip is regarded by many physicians as a systemic cold, and patients are allowed to get up much too soon. Unless outspoken murmurs are present, heart enlargement is demonstrable, edema persists, or changes in the electrocardiogram are found, the heart is pronounced normal. Myocardial weakness is the most common of heart defects and organic leaks of the valves are the most rare. Even the mild forms of grip offer potential possibilities of myocardial disease and show evidences of lingering infection in the body tissues. The most effective treatment that the author has found consists of rest and tonic doses of digitalis and nux vomica (not with the idea of digitalization) to tone up the heart muscle and vasomotor system.—*Journal A. M. A.*

JAMAICA GINGER PARALYSIS

The autopsy reports of three patients with jamaica ginger paralysis dying of other causes are presented by RAYMOND H. GOODALE and MARGARET B. HUMPHREYS, Worcester, Mass. (*Journal A. M. A.*, Jan. 3, 1931). A study of the nerves shows an acute inflammation of one segment of the cauda equina in one case, and myelin sheath and axis cylinder degeneration of the radial, sciatic external popliteal, anterior tibial and posterior tibial nerves in all three cases. The degeneration is found as high as the gluteal fold in the sciatic nerve but not in the anterior roots of the lumbar cord. These observations are consistent with the observations in a follow-up clinic in which it was found that all patients showed marked improvement of wrist and finger motion and little or no improvement of foot motion from five to six months after the onset of paralysis.

THE ROUTINE PHYSICAL EXAMINATION

HUGO A. FREUND, A.B., M.D.

DETROIT, MICHIGAN

The term "Physical Examination" implies an objective survey of the human body and its functions. The thoroughness with which a physical examination is done depends upon three factors: (1) the expertness of the examining physician; (2) the uniformity of his technic; (3) the material and facilities for carrying out essential tests.

No physical examination should be partial or incomplete. By this I mean that every system of the body should be included in order that either directly or indirectly each organ and function may be brought under the scrutiny of the examining physician. This makes it possible where abnormal states are not superficially apparent to discover "leads" or "clues" suggesting important underlying conditions. Though the personal equation may enter into the results, the examiner, by the development of a routine technic, can minimize the errors that may creep into a physical examination. Above all, the physician must never allow the patient's history to affect the accuracy of his objective findings. His impressions, diagnosis and ultimate judgment should rest upon the proper evaluation of history, physical examination and laboratory information. The complete physical examination is meant to include all the findings acquired by personal investigation, instrumental measurements and laboratory findings. The first of these must be systematic and uniform; the latter two should be carried out with care and trustworthy precision. The armamentarium of the physician for performing a complete physical examination requires, first of all, that he understand the fundamentals of Inspection, Palpation, Percussion and Auscultation. In other words, he must be able to use his own special senses to recognize and record the physical signs in the subject before him. He may or may not make his own observation of height, weight, and circumference; and he may or may not carry out some of the laboratory procedures; but he alone is responsible to the client and to himself for the accuracy with which he makes the physical examination and for the proper evaluation and emphasis that he places upon the findings.

Let me repeat again the fundamental methods necessary to be remembered and carried out routinely and precisely in every examination: Inspection, Palpation, Percussion and Auscultation. With these in mind

let us proceed to examine our patient. First of all, the subject should be stripped, lying on a comfortable table, the chest covered with a towel and a sheet over the entire remainder of the body. The room should be lighted by daylight only and the patient's feet should be toward the window. Preliminary inspection is made of his expression, color, skin, nutrition, musculature, hair, nails, superficial markings and general appearance. Now the examiner proceeds with the more intimate inspection of the eyes, noting the position the sclera, the conjunctivæ and the pupils with regard to their reaction to light and accommodation. Extraocular muscle movements are also quickly noted.

The nose is next examined. By means of a flash-light one may occasionally with direct and indirect illumination detect deviations in the septum or other changes obstructing the nares. Important discharge, bleeding surfaces and even perforations may be seen without resorting to the use of reflected light. It is well, however, to use a head-mirror or make, when possible, a dark room examination, especially for sinus transillumination.

The organs of hearing are next examined. A watch tick whose loudness is known is tried at either ear; with an otoscope the canal and drum are inspected. The oral cavity requires careful scrutiny. The condition of the lips and buccal mucous membranes is observed. The teeth are examined for occlusion, general caries, pyorrhea, devitalized roots. Next, the palatal arch is noted and then the soft palate and tonsils. The pharyngeal reflex can always be tested quickly while examining the pharynx. Be-

fore leaving the oral cavity one looks at the tongue—that deceptive talisman of so many conditions: One must be careful not to ascribe too much meaning to its appearance.

We now come to the neck and *inspect* it for changes in the thyroid gland, enlargement of lymphatics and pulsations in the great vessels. Here we make use at the same time of palpation to detect changes and to supplement inspection.

In the thorax we have three important structures to examine: First, the breasts. We look for scars, irregularities, discharges, retracted nipples, and confirm the presence of any findings by careful *palpation*. This should be done in the female both in the sitting and recumbent positions. Transillumination is often of value in the suspected cases. This may be carried out with a strong flash-light. The thorax is examined for symmetry, pulsation, equality of expansion of the two sides in the supraclavicular, infraclavicular and axillary regions. The thorax is then *palpated* for the purpose of confirming and further discovering pulsations and the character of expansion. In the process of *palpation* over the lung, friction may be felt and fremitus of the transmitted spoken voice should be compared on the two sides. Over the precordium, thrills, shocks and abnormal pulsations may be recorded. *Percussion* of the thorax must always be systematically carried out. First, the resonance is compared on the two sides in the first interspace. Next, the lung boundaries are mapped out by percussing the height of each apex, anteriorly and posteriorly; and locating the lung-liver border on the right and the lung-stomach border on the left. Then the heart borders are determined by percussing first the upper border, then the right edge, and, where possible, the left border of cardiac dullness. The landmarks having been determined, one proceeds to *auscult*, first the lungs and then the heart. The normal vesicular murmur of respiration is compared on the two sides of the lung both anteriorly and posteriorly, and its intensity, ratio of inspiration to expiration (which averages as 3 to 1), and abnormal or adventitious sounds are listened for. Auscultation of the heart should be done routinely by listening to and noting the character of the first sound at the apex followed by the second, and tracing these sounds into the axilla and along the left border of the sternum; next, by placing the stethoscope at

the second left i.c.s. and noting the pulmonary second sound, and then at the second right i.c.s. and observing the character of the aortic second sound. The transmission of heart sounds may be followed, if occasion demands, into the great vessels of the neck and even to the femorals. At this point systolic and diastolic blood pressures may be taken both in the sitting and recumbent positions. If the readings appear unusually high or low, readings in both arms should be made. The heart may be further examined by noting the pulse rate with exercise. The patient hops from 30 to 100 times, depending upon his age, and then he immediately lies down. The pulse rate at the end of two minutes should have returned to normal. During the entire examination of the circulatory system irregularities of heart beat are noted. Their significance may be determined, if necessary, by the electrocardiograph.

The abdomen is *inspected* to describe its contour, the presence of scars, of intestinal activity and of enlargements. By palpation we detect areas of tenderness, superficial or deep, the general muscle tone and the presence of muscle spasm in sensitive regions. One now proceeds to *palpate* the spleen, the liver and the kidneys, and to note the presence of other abnormal masses. It is important when the organs of the abdomen are felt to note whether they move with respiration, whether they can be held in position when they descend, and their general size and consistency. *Percussion* of the abdomen is only of value when distention is present due either to tympanites or to the presence of free fluid. It is always important to percuss from the resonant to the dull in outlining borders and regions. *Auscultation* of the abdomen is rarely of value and when used is simply done to supplement some interesting or exceptional findings. It has little diagnostic value.

Next, one *inspects* and *palpates* the inguinal regions for hernia with the patient both in the recumbent and standing posture. In the male the genitalia are examined, particular attention being given to scars and malformations about the penis. The testes are examined for masses, enlarged veins, nodules or tenderness in the cords. The examination of the prostate and seminal vesicles is then made by having the patient in the knee-chest position and with fingercot palpating these organs. The anus and rec-

tum are *inspected* and *palpated* at the same time. Proctoscopic examination shall always be made when the history suggests possible trouble higher in the rectum.

In the female the pelvis should be completely examined, attention being given in the external regions to the labiæ, the urethral orifice and the clitoris. The character of discharges is noted. Where a marital hymen is present at bimanual examination should be carried out, noting condition of the cervix, the size, position and movability of the uterus, the condition of each tube in the broad ligament, and the size and position of the ovaries, if possible. The finger may then be introduced into the rectum and its condition noted. In women who have borne children, the recto-vaginal floor should be examined. Only when absolutely indicated should the virgin pelvis be examined, and then, always, preferably by rectum.

The nervous and osseous systems may now be examined. The patient is allowed to stand up and the posture, bony prominences, joints, gait, static position and condition of the feet are noted. The patient is then seated on the edge of the examining table when the patellar and Achilles reflexes are checked. Tests to determine changes in the central nervous system, such as clonus, Babinski, muscle power and coördination tests, are made. If indicated, the abdominal reflexes

are also elicited. Finally, tremors in the extended hands or under voluntary and directed motion are looked for. Should edema, varicose veins, cyanotic or pale extremities be noted, their importance is established by further tests to determine their significance.

The physical examination completed, the weight, height and temperature are taken and recorded as of the hour of the day they are made.

Supplementary to this physical examination are the laboratory tests. Routinely a complete urinalysis, the hemoglobin, and, when facilities are at hand, a complete blood count, including the differential, should be carried out. *I urge a routine Wassermann test in every patient.* Besides these examinations which the laboratory should make, indications in the particular case suggest, usually, the need for additional studies. A fluoroscopic examination of the thorax is very valuable, to determine pulmonary or cardiac conditions that may require a film for positive determination. The same may be said of an electrocardiogram in patients over 45 years of age or in those presenting signs of vascular disease. Only when indicated need a spinal puncture be considered. This applies as well to many types of special tests involving gastric and stool analyses, blood chemistry and bacteriological investigations.

COMMENTS ON NEUROLOGICAL EXAMINATION AND DIAGNOSTIC PROCEDURES*

CARL D. CAMP, M.D.†

ANN ARBOR, MICHIGAN

A neurological examination can be considered as divided into three parts or phases. The first phase is that of the examination of the physiology and the physiologic reactions of the nervous system; the so-called clinical examination. Its chief value is the discovery of any disturbance of the functional integrity of the different parts of the nervous system and, by inference, the location of any disease process if one should be present. The second phase of the neurological examination might be called the laboratory phase although most of these procedures require the presence of the patient. The third phase is the determination of the relationship of the patient's emotional state and ideas to his functional disturbances and complaints, or the psychoanalysis.

In the clinical examination of the patient the tests are chiefly tests of reflex activity, *i.e.*, the responses of a certain part of the nervous system to a stimulus from outside. By making a sufficient number of tests we can draw inferences as to the condition of almost any part of the nervous system that we wish to examine. However, it must be remembered that always the result of the

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†Dr. Camp obtained his M.D. degree from the University of Pennsylvania in 1902. From 1905 to 1907 he was Instructor in Neuropathology at the University of Pennsylvania. He is now Professor of Neurology at the University of Michigan.

test is a matter of judgment. The examiner must know what result to expect normally, and then must use his judgment in recording this result. Such results constitute the data upon which the final diagnosis will be made. The accuracy of a diagnosis depends on accurate data. The accuracy of the final diagnosis of a case may be checked by the autopsy findings, but the question of accuracy of data cannot be checked and is a matter of opinion based on experience. It has seemed to me that the clinical examination of the patient was the most important and generally the most informative part of any examination, but it must be borne in mind that all the data so obtained represent the judgment of the examiner and that the chance of error based on inexperience, poor judgment or carelessness is a continuing hazard.

Not a week passes but some new "sign" is suggested, some new reflex discovered, or some method of testing coördination. Some of these are really new and valuable, but most of them are merely slight variations in method. It should be emphasized, I think, that this multiplication of signs and elaboration of methods is really not a great gain. Josh Billings said, "It's better not to know so much than to know so much that ain't so." As an illustration, suppose we take the well established Babinski sign, the extension of the great toe on plantar stimulation which is supposed to indicate involvement of the pyramidal tract. What shall we say when we find that irritation of the inner side of the sole causes extension when the foot is warm, flexion when it is cold; or extension when the knee is flexed, flexion when it is extended? All of these variations have occurred in cases under my observation. Does that indicate that the test is of no value? Certainly not. It does indicate that care and judgment are necessary in evaluating it. The same thing is necessary in any test.

The second phase of a neurological examination, that part of the examination which is made with the coöperation of laboratories, X-rays, etc., has grown greatly in importance in recent years. One of the most commonly used laboratory methods is the spinal puncture. This test, which came into common use only in the past twenty years, is now done quite routinely in hospitals and well equipped offices. In most cases a spinal puncture is a quite harmless, diagnostic procedure if done with careful aseptic precau-

tions. I would call attention to possible contraindications. A spinal puncture is dangerous in cases of increased intracranial pressure unless it is done with great care to avoid reducing the spinal pressure suddenly. This can be done by drawing off only the minimal quantity necessary for diagnosis and taking it very slowly. A more important contraindication, to my mind, and one that is frequently neglected, is the presence of an infection either in the blood stream or in some focus near to the cranial cavity, such as, for instance, in the mastoid. Under these circumstances I have seen a lumbar puncture followed by the development of a meningitis which I feel sure would not have occurred if the infection had not, so to speak, been drawn into the central nervous system. In doing a lumbar puncture one of the first observations made is of the spinal pressure. I do not believe that the absolute pressure of spinal fluid indicated at lumbar puncture is of great importance in diagnosis. Some of the highest intracranial pressures follow simple concussion of the brain, and, on the other hand, cases of brain tumor may show a relatively low spinal pressure. The variations in pressure during the puncture are important. If the pressure, high to begin with, suddenly drops, it usually indicates a block of the spinal canal, and if this is further confirmed by an absence of a rise following compression of the jugular veins, this idea is confirmed.

In the examination of the spinal fluid obtained by puncture, many tests are used, but only a few of them, it seems to me, are of considerable importance. The cell count is always of value. The number of cells should not exceed six lymphocytes per cubic millimeter. In the case of a large number of cells as seen in meningitis, et cetera, the manner of counting and time is not of great importance, but in cases that are on the borderline the cells should be counted immediately after the puncture. If the fluid is allowed to stand, the cell count will invariably be lower than it would be if fresh, and may, therefore, appear to be within normal limits.

The amount of albumin in the spinal fluid is usually estimated by one of several tests. The test that I consider most valuable and practical is the so-called Pandy reaction. A clean test tube is filled part way with a 5 per cent solution of carbolic acid. The solution should be perfectly clear. Then a drop

of spinal fluid is allowed to fall into this solution. If the spinal fluid is normal the drop can be seen to fall through the carbolic solution but with no clouding, and it will remain water clear. If there is a bluish cloud surrounding the drop one can be sure there is some pathologic change present. In cases of spinal cord tumor, the drop of fluid seems to solidify and falls quickly to the bottom of the tube.

A test which is of considerable value, but frequently omitted in the examination of the spinal fluid, is the sugar content. Normally, spinal fluid reduces Fehling's solution. In cases of meningitis, especially acute meningitis, this reducing substance may be entirely absent. On the other hand, in encephalitis and poliomyelitis the reducing substance is usually increased.

The serology of the spinal fluid is of considerable importance. I would comment, however, in this connection on the fact that it is perfectly possible to have a syphilitic involvement of the central nervous system and still have a negative Wassermann or Kahn reaction on the spinal fluid. This is not infrequently the case in syphilitic lateral sclerosis and it is almost always the case where a syphilitic vascular disease has caused thrombotic cerebral softening. On the other hand, the Wassermann test is practically 100 per cent positive in the spinal fluid in cases of paresis and at least 75 per cent positive in cases of tabes dorsalis.

The bacteriological examination of the spinal fluid is not made by cultural methods or animal inoculation as frequently as it should be. It is especially difficult to stain the tubercle bacillus. I have seen many cases of tuberculous meningitis proved by necropsy in which it has been impossible to find the tubercle bacilli in the fluid by the regular staining methods throughout the course of the disease.

Another important test of the spinal fluid is the gold sol. On this test, I would offer the comment that a positive gold curve is frequently misinterpreted as an indication of syphilis. This is not true. There may be precipitation in the first three or four tubes in many other conditions, such as brain tumor, etc., and it is regularly true that there is a precipitation, frequently of parietic type, in cases of multiple sclerosis.

An X-ray examination of the skull is not often of much assistance in neurologic di-

agnosis. In children especially, an increase of the digital markings may be due to increased intracranial pressure and indicate a brain tumor. In cases where tumors are adjacent to the bone as the meningiomas, and those in or near the sella turcica, the bone deformity is often a valuable clue to the correct diagnosis. In traumatic cases the X-ray will reveal a fracture, but the mere fact of a fracture does not signify as to the neuropathology present. The most serious effects on the brain, traumatic encephalitis, subdural hemorrhage, and the like, are often unaccompanied by skull fracture.

A more valuable diagnostic procedure is the ventriculogram or the encephalogram. In the former, the fluid in the ventricles is substituted by air injected into them directly through the trephine openings. In the latter, the fluid is withdrawn by a lumbar puncture and the air is injected intraspinally. The ventriculogram is more often used when there is evidence of increased intracranial pressure and where an operation can be done immediately afterward. It is a distinctly surgical procedure and not without danger.

In injecting air for encephalogram the patient is not anesthetized. He is usually placed in a special chair with a head rest so that his head can be held steadily in certain positions while the roentgenograms are made and the whole procedure is carried out in this chair by rotating it in various positions. An important point in substituting air for fluid is to keep the pressure as even as possible. The encephalogram not only shows the location and size of the ventricles, but the air spreads over the cortex as well so that cortical atrophy, subdural growths or hemorrhages can usually be demonstrated if present.

While primarily a diagnostic measure, the encephalogram may have a favorable therapeutic effect in cases of concussion headache, traumatic encephalitis and epilepsies, especially in those due to encephalitis.

I shall not say much about electrical tests except to comment that the electric reaction of degeneration is still the most reliable way of differentiating an upper from a lower motor neuron lesion and is also the best measure of the prognosis in the latter. The test of the chronaxia of muscle and nerve, while extremely interesting, strikes

me as being too complicated and delicate to be of value in ordinary clinical work.

Finally, the third phase of the neurological examination is the psychoanalysis. It seems to me that there is considerable misunderstanding in the medical profession as to what is meant by psychoanalysis. This is to be expected. It is not taught in any medical school and you are more likely to read about it in lay rather than medical magazines. It should be understood that a real analysis of the patient's subconscious mind does not mean a new philosophy or a cult of sex, although one might think so from reading some popular articles and books on the subject. Primarily, it is also not a method of treatment. Treatment may be based on a psychoanalysis just as a vaccine treatment might be based on a bacteriological analysis. I might point out also that the psychiatric examination is entirely different from the psychoanalysis since the former deals with a study of the disturbances in conduct, thought and feeling, whereas the latter is an investigation to determine the presence or absence of mental conflicts in the subconscious in patients who

may be normal in conduct and logical in thought, but who complain of feelings or psychological reactions that may be explained by those conflicts. It is not in my province to dwell on the importance of the mental factor in medicine. Many authors have dwelt on this recently in papers on arthritis, gastric ulcer, hypertension, hyperthyroidism, and other conditions, but they mostly overlook the fact that there is a subconscious. Merely questioning the patient cannot be expected to elicit facts from the subconscious unless the examiner is extremely clever in drawing inferences and since these inferences will usually be denied by the patient, the essential facts are not brought to the surface by any amount of cross examination. There are many difficulties in the way of a psychoanalysis and different investigators may prefer different methods, such as free association, reaction time tests, analysis of dreams, etc., but they all require considerable time and the cooperation of the patient. The point of greatest importance is adherence to a careful technic which, to be free of error, must be as rigid as a bacteriological technic.

EMBOLISM OF THE PULMONARY ARTERY

TWO CASE REPORTS*

GEORGE G. RIECKHOFF, M.D.,† and VINCENT J. TURCOTTE, M.D.‡

DETROIT, MICHIGAN

Case 1.—Mrs. M. N. entered the hospital on March 20, 1932, complaining of repeated attacks of pain in the right side accompanied with nausea and vomiting. Physical examination revealed an acute appendix, slight enlargement of the thyroid, mitral insufficiency and varicose veins of both legs.

The appendix was removed on March 21, 1932. The report on the specimen removed was subacute appendicitis with a small area of peritonitis. Recovery was uneventful until the fifth day when she complained of pain on the medial aspect of her left thigh. On examination, the saphenous vein was found to be enlarged and tender midway between the knee and the groin. There was a slight elevation in temperature and pulse rate. The limb was immobilized with a splint and an ice bag was placed over the area of tenderness. By the eleventh day, all pain and swelling had subsided and the vein seemed normal.

On the afternoon of the eleventh day when attempting to get out of bed for the first time, she was seized with a sharp pain in the region of the heart, great difficulty in breathing and fell back into bed in a semi-comatose state. Examination at this time found her cyanotic, pulse rapid and weak. A loud systolic murmur was heard above all heart sounds.

An ice bag was placed over the precordium and

morphine and digalen were given hypodermically. Her condition gradually improved. The pain became less, the heart rate became slower and the intensity of the heart tones stronger.

The day following the attack she developed a slight cough and noticed a sharp pain on inspiration in the lower part of the right chest. Examination revealed no râles or areas of consolidation. Within a week all symptoms subsided. She felt quite well and was allowed to leave the hospital. She has been well ever since.

Although not proven by X-ray or necropsy, the sequence of events undoubtedly prove a thrombus of the saphenous vein with embolism of the pulmonary artery, and

*These cases were presented in both staff meetings and clinical pathological conferences at St. Mary's Hospital, Detroit, Michigan, on October 11, 1932, and October 25, 1932, respectively.

†George G. Rieckhoff, M.D., 14905 East Jefferson Avenue, Detroit, Mich., a graduate of Marquette University, 1916, is Associate in Gynecology, St. Mary's Hospital, Detroit.

‡Vincent J. Turcotte, M.D., 14196 East Seven Mile Road, Detroit, Mich., a graduate of University of Michigan, 1925, is Attending Obstetrician and Gynecologist, St. Mary's Hospital, Detroit.

finally, infarct in the lower lobe of the right lung.

Every year many articles appear in the world's literature on embolism of the pulmonary artery. Among the most interesting of the late articles has been one by Walters of the Mayo Clinic listing 267 fatal cases in 63,000 major operations. He believed the routine use of thyroid extract reduces the incidence. Hosoi found 64 cases proven at autopsy in 62,000 admissions to the Albany, New York, Hospital. Bagley and Smith listed nine cases, with one confirmed by autopsy, in the orthopedic service at the Henry Ford Hospital. It is generally believed that the occurrence of pulmonary embolism varies from 1 in 1,000 to 1 in 500 major operations by the different observers.

Predisposing causes are cardio-vascular pathology, slowing of the blood stream, increased blood clotting time, decreased blood volume, lowered metabolic rate, trauma, and infection. The time of the occurrence is usually between the end of the first to the third post-operative week. It seems to occur in those who have made the best and most uneventful recovery.

Usually a few days before the thrombophlebitis is definitely defined, there will be a slight elevation in temperature and pulse rate. When once seen, the symptoms will never be forgotten. When sitting up for the first time or getting out of bed, the patient will be seized with severe pains in the region of the heart, dyspnea, loss of consciousness, weak and rapid pulse with a loud systolic murmur in the cardiac region, cyanosis and death in a few minutes or hours.

While the articles in this country go into great detail in discussing the incidence, predisposing causes, mortality rates and preventive measures, nothing has been mentioned of the active treatment when once an attack has occurred. For this we have to turn to the European literature. Trendelenburg was the first to operate and remove a pulmonary embolus in 1908. The first successful case that made a permanent recovery was in 1924. To date, there have been sixteen cases operated upon and survived operations with six permanent recoveries. This is not a bad percentage when we take into consideration that only those cases were operated where death seemed inevitable. Nyström of Sweden reported five operated cases with two permanent recoveries. Usually death is so sudden that nothing can

be done and it is a matter of good fortune when any one is near in the emergency.

We are reporting this case because it indicates the importance of sclerosing all varicosities of the legs. If we had treated this case as recommended by Homans and Stone, who advocate tying off the saphenous vein above any thrombus formation, we feel certain it would have saved this person much suffering and ourselves many anxious moments.

The second case which we are reporting is one in which the thrombus was primarily located in the pulmonary artery. It is as follows:

Case 2.—J. S., aged seventy-six, plastering contractor by occupation, retired, entered the hospital May 11, 1932, in coma. We saw him at 2:00 A. M. the same morning as he entered. His relatives claim that the patient was in perfect health until about three months previous to his admission, when he suddenly became comatose and was unconscious for a period of forty-eight hours. He recovered spontaneously with seemingly no residual with the exception of slight memory disturbances and was apparently in good health until the second attack. Past history, as to symptoms, is essentially negative.

Examination on admission revealed an elderly white adult male lying in bed in coma and very restless. He voids involuntarily. Skin: Good texture, no cyanosis or edema. Head: Shows no injury, deformity or areas of tenderness. Face: Appears to be somewhat drawn to the right, although this was questionable. Pupils: Contracted, equal and regular. React to light. Ears: No discharge or obstruction. Canal and drum membrane normal in appearance. Mouth: No congestion of pharynx or palate. Tonsils intact. Remaining teeth in fair condition. Chest: Expansion bilaterally equal. Lung fields clear. No fluids, râles or areas of consolidation. Heart: Borders within normal limits. Tones of good quality. No murmurs heard. Abdomen: Level of the costal margin. Soft. No tumor masses palpable. Liver, spleen and kidneys not palpated. Abdominal reflexes present equal and active. Extremities: Biceps, triceps and patellar reflexes present equal and active. Negative Babinski. Blood pressure 150/90.

Laboratory Findings: Blood, 80 per cent hemoglobin; Index 1; R. B. C. 4,000,000; W. B. C. 12,200; 79 per cent polys.; 20 per cent lymphs.; 1 per cent endo. No pathological cells. Blood N. P. N. 43; blood sugar 160. *Urinalyses:* Amber in color, cloudy, acid in reaction, Sp. Gr. 1.018, Albumin one plus. Sugar: Slight reaction. Occasional red blood cell. Repeated urinalyses were essentially the same. *Temperature* on admission was 100.6 (ax.); pulse 136 and respirations 34. The temperature thereafter raised from 100.6 (oral) to normal at its height in the afternoon. *Respirations* on admission were of the Chene-Stokes type. Kahn precipitin test negative.

Progress: May 12, 1932: Slightly improved. Has had several lucid intervals, orientated as to time and place. Still voids involuntarily and relapses into stupor. Blood pressure 140/65. May 15, 1932: Some congestion in both lungs. Blood pressure 120/65. May 15, 1932: Pulmonary congestion considerably increased. May 18, 1932: Patient cyanotic and dyspneic. Both lung bases considerably congested. Large moist râles throughout both lung fields. Patient seems much weaker. May 19, 1932: Seems

considerably weaker. Cyanotic, breathing difficult, pulse 48. May 20, 1932: Lungs very much congested. Large moist râles throughout lung fields. Patient in coma. Expired at 10:00 A. M.

AUTOPSY REPORT

General Description: A well developed and fairly nourished white, aged male. Shows no external lesions.

Cranial Cavity and Contents: *Dura* adherent firmly to cranial bones. No excess of subarachnoid



Fig. 1. Case 2. Pre-agonal pulmonary thrombus. Complete cast in both lungs removed at autopsy.

fluid. No prominent cerebral arteriosclerosis. No evidence of old or recent hemorrhage and no areas of thrombosis, embolism or cerebral softening.

Thoracic Cavity and Contents: Both lungs moderately emphysematous anteriorly. Both upper lobes contained small scars of healed tuberculosis. Both lungs show dorsal hypostatic congestion, hypostatic pneumonia and the lower right lobe has a sharply defined area of lobular consolidation of pneumonia character. All the bronchial tubes on the left side contain mucopurulent exudate. The *pericardial sac* is normal; it contains no excess of fluid. The *heart* is slightly hypertrophied. The first portion of the left *coronary artery* is sclerotic and partially calcified. Very slight sclerosis of the smaller coronary arteries. No area of cardiac thrombosis, softening or fibrosis. No lesions in the interventricular septum.

All valves normal. No area of mural thrombosis. The pulmonary artery contains a firm, well moulded thrombus which ramified through the primary and secondary branches. A similar thrombus is present in the aorta.

Abdominal Cavity and Contents: *Stomach:* Small, no lesions present. Slight atrophy of the gastric mucosa. *Duodenum* is normal. *Pancreas* shows slight atrophy and fatty infiltration. *Spleen* is small. *Liver* is slightly diminished in size. No degeneration or cirrhosis. *Gall bladder* and *bile ducts* are normal. *Small intestine* is normal. Multiple acquired diverticulosis of the *descending colon*. *Adrenals* grossly normal. *Right kidney* slightly smaller than the left and shows slight congestion of the pelvic mucosa. No sclerosis, vascular or organic. No infarcts. No evidence of nephritis or nephrosis. *Ureters* normal. *Urinary bladder* normal. *Prostate* not enlarged. A few areas of sclerosis of the lower aorta and right iliac artery.

Diagnosis: Pulmonary and aortic thrombosis. Terminal hypostatic pneumonia. Diverticulosis of the lower colon.

There is no doubt that this man died of a hypostatic pneumonia. Both physical findings and autopsy findings were quite in accord with this diagnosis. The interesting part of the case is the thrombus with its ramifying branches into the primary and secondary divisions of the pulmonary artery. It was definitely organized and there is no doubt that it was a pre-agonal formation.

In regard to the etiology of these periodic seizures of unconsciousness, we have not come to anything definitely conclusive. There is evidence of some toxic agent being present because of the slight changes found in both the N. P. N. and blood sugar. He responded quite well in the beginning to infusions of glucose and saline and up until the time pneumonic signs and symptoms developed he seemed to be recovering nicely.

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SO-CALLED ESSENTIAL UTERINE BLEEDING*

NORMAN R. KRETZSCHMAR, M.S., M.D.†

ANN ARBOR, MICHIGAN

For years the terms essential or idiopathic uterine bleeding have been applied in cases where no gross local or general disease exists to account for the symptom. The condition is very common and occurs in women at all ages, but is most frequently observed at the extremes of menstrual life. The bleeding may vary from a slight increase in flow at the time of the regular period to severe bleeding at any time during the menstrual or intermenstrual period. The onset is usually gradual, later becoming profuse.

As shown by Cullen,¹ Shroder,² Novak,³ Fluhman,⁴ and others the symptom in most cases is associated with glandular hyperplasia of the endometrium. This is characterized by a hyperplasia of both the stromal and glandular elements, sometimes presenting a distinctly polypoid appearance. The glands may show marked cystic dilations, the "Swiss cheese hyperplasia" of Novak. The actual bleeding is thought to occur as a result of localized areas of necrosis with patchy sloughing of the endometrium. Recent investigations suggest that glandular hyperplasia is the result of a disordered ovarian function,⁵ a point to be considered in evaluating data here given.

The purpose of this paper is to present certain data gleaned from study of a limited group of patients suffering from menorrhagia and metrorrhagia. Special emphasis being placed on the relationship of glandular dyscrasia (hypothyroidism) as a possible etiologic factor.

In this series the records of seventy patients all under the age of twenty-five were examined. These patients entered the hospital with a chief complaint of excessive bleeding and in no instance was there any gross evidence of pathologic changes in the pelvic organs. All of these patients were well developed. None were classified as emaciated and only three were overweight. Abnormal uterine bleeding associated occasionally with weakness and lassitude were the only recorded complaints.

BLOOD EXAMINATION

Examination of the blood revealed a wide variation in findings.

The clotting time, bleeding time and differential counts were within normal limits.

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†Dr. Kretzschmar is Assistant Professor of Obstetrics and Gynecology, University of Michigan.

TABLE I

	High 90%	Low 14%	Average 65%
Hemoglobin			
Red blood cells.....	5,880,000	1,920,000	3,880,000
White blood cells.....	11,150	4,500	7,800

BASAL METABOLISM

Forty-three of the seventy patients had a basal metabolic rate determination. The negative rates totaled 37 or 86 per cent and the positive rates 6 or 13.9 per cent. Many of the negative rates were within the generally considered lower limit of normal or minus 16 per cent. The average negative rate was minus 11.4 per cent.

MICROSCOPIC EXAMINATION OF ENDOMETRIUM

Thirty-six of the seventy had a dilatation and curettage and the microscopic findings were as follows:

TABLE II

	Number	Per cent
Glandular hyperplasia.....	22	61.1
Curettings negative.....	10	27.7
Atrophic endometrium.....	2	5.5
Chronic endometritis.....	2	5.5

In many of the patients in the latter part of this series curettage was omitted as a diagnostic procedure but there were twenty who had both a metabolic rate determination and curettage. Correlating these we find:

TABLE III

	Number	Per cent
Glandular hyperplasia associated with a minus B. M. R. in.....	16	80
Glandular hyperplasia associated with a plus B. M. R. in.....	1	5
Atrophic endometrium associated with a minus B. M. R. in.....	2	10
Chronic endometritis associated with a minus B. M. R. in.....	1	5

TREATMENT

The usual treatment in patients presenting a metabolic rate below zero consisted of

the administration of thyroid extract (desiccated whole gland). This was given in sufficient quantity to raise the metabolic reading slightly above zero. The amount was then decreased to a maintenance dose, usually one-half grain two or three times daily. The average length of time that patients with this form of treatment were followed has been seven and one-half months. The total number of patients treated was twenty-three, and the results as determined by re-examination and questionnaire were as follows:

TABLE IV

	Number	Per cent
Bleeding stopped or normal.....	16	69.5
Bleeding decreased	1	4.34
No improvement	4	17.3
No subsequent history obtainable..	2	8.6
Total number of patients cured or improved	17	73.9

Eighteen patients were treated by curettage alone. Ten of these answered the questionnaire and only four, or 22.0 per cent, reported relief from symptoms. In three the curettage was repeated twice and in one three times without benefit. Analysis of the four cases in which patients reported relief from symptoms showed that only one presented a minus rate associated with glandular hyperplasia. Of the remaining three, one had a positive rate associated with chronic infective endometritis, another had a normal basal rate with an atrophic endometrium and the third had normal endometrium but no basal rate was recorded.

No success was noted from the use of calcium in the form of lactate or gluconate, from the various iron preparations or general measures when used alone, but they did seem to improve the patient's general condition when used in conjunction with other forms of treatment. Parathormone was given to one patient with no improvement.

Two patients were operated on, a decapsulation of the ovaries with partial oöphorectomy being done. Neither of these patients reported relief. Nine patients were given radiation therapy. Six of these received X-ray in a dose calculated to cause a temporary sterilization. In two of these the spleen was also irradiated. The other three received 300-400 mgm. hours of intrauterine radium screened by 1 mm. of brass and 1 mm. of aluminum. In these patients other forms of treatment had been tried and found ineffectual. Seven of the patients treated with X-ray or radium reported re-

lief from symptoms. The remaining two, however, continued to bleed and a sub-total hysterectomy was done in each as a last resort.

DISCUSSION

As far back as 1916, before the common use of basal metabolic rate determinations, cases of this type cured by the use of thyroid extract were recorded.⁸ More recent investigations have shown that mild hypothyroid states, as evidenced by basal metabolic readings from 0 to minus 30 per cent, are important in the production of a fairly definite clinical syndrome of which abnormal uterine bleeding is a frequent symptom.^{8, 9, 10} The other symptoms of this condition include lassitude, headache, vague pains, and constipation. The evidence, however, does not prove conclusively that the disturbance is limited to the thyroid alone. The close physiologic relationship between the glands of internal secretion would seem to indicate that it might be a multiple or general endocrine imbalance. On this basis we might assume that the mild hypothyroidism may be secondary to some change in the ovary which in turn is responsible for the endometrial hyperplasia and resultant bleeding or vice versa. Although this is largely theoretical, it at least partially explains one of our most common findings and rationalizes the treatment with thyroid extract.

DEDUCTIONS

1. A large proportion of young women complaining of abnormal uterine bleeding present no gross pelvic pathology nor any marked general pathology to account for the condition. These cases are usually diagnosed as essential uterine bleeding or idiopathic uterine bleeding.

2. A fairly large proportion of the patients of this type (86 per cent in this series) present a basal metabolic rate below zero but frequently within the generally considered lower limit of normal or minus 16 per cent. Most of these patients also have a glandular hyperplasia of the endometrium (80 per cent in this series).

3. The careful use of thyroid extract in doses sufficient to raise the basal metabolic rate above zero and to maintain it is beneficial in a large per cent of cases (73.9 per cent in this series).

4. Curettage is of very limited therapeutic

tic value and is seldom indicated except when it seems advisable to rule out malignant disease of the uterus.

5. X-ray, radium, and hysterectomy are effective in the treatment of this condition but should be used only as a last resort in young women.

6. Evidence from this series and from other recent contributions would seem to show that basal metabolic rate determinations within the generally considered low limit of normal minus 16 per cent may be definite evidence of mild hypothyroid states

which can be benefited by the careful administration of thyroid extract. If this be true the limit of normal for minus rates should be changed.

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SAVING THE PERINEUM*

J. E. COOPER, M.D.†

BATTLE CREEK, MICHIGAN

I think that it can safely be said that so long as women have given birth to babies that there have been perineal lacerations. I also think that it is equally true that the ancient women were not subject to so many lacerations nor to such a degree. This, no doubt, is the result of the different habits and mode of living of the different ages.

Hippocrates recognized the importance of the prevention of perineal laceration, and sought to soften the structures by oily salves and relaxing douches, a practice which was recommended by Baudelocque and others, even by some today. Van Horn (seventeenth century) dilated the perineum, pushing back the coccyx and stretching the levator ani manually. Soranus of Ephesus (about 110 A.D.) first attempted to "support" the perineum with the hand.

I believe that the consideration of the subject of perineal lacerations is almost as great, if not greater, than that of any other subject, not that the single lacerated perineum is of so great concern but in the total number of lacerations and the attendant disabilities and inconveniences such as prolapse and protrusion, procidentia, cystocele and rectocele, incontinence both rectal and urinary, with the backache and bearing down sensations and constipation and leukorrheal discharge, so that the total disabilities of perineal lacerations I think will outweigh most any other consideration.

The intelligent woman of today has the lion's share of responsibility when she carries her baby to term and goes through the ordeal of bringing that baby into the world and then nurses it for at least half a year with all the other duties connected

with household and society. That woman has a right to be in the best physical condition.

Most obstetricians at the present time will give a woman enough sedatives to relieve her of the few hours of pain during childbirth and yet these women may go through the balance of their life with the discomforts of incontinence, prolapse, backache, leukorrheal discharge, etc., for the want of a little care during the delivery.

A great many times have I found this condition, that at a spontaneous delivery no lacerations had been discovered, yet the perineum at the time of delivery was examined, but later on at another examination the relaxed perineum and cystocele and rectocele gave one the impression that a laceration had taken place.

The only explanation which I can give is that the muscle fibers of the transverse perineal were ruptured beneath the mucous membranes, thus allowing the rectocele and cystocele to develop, having all the effects of a lacerated perineum.

(It sometimes happens that some other physician examines your patient for you and

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†Dr. Cooper is Obstetrician at the Battle Creek Sanitarium.

also tells her that you let a perineal laceration go unrepaired.)

In consideration of these facts I have attempted to work out a plan to save the perineum to these women.

The labor is allowed to proceed normally into the second stage. (Of course, the usual analgesia is given, such as morphine and scopolamine or rectal analgesia and as much as the individual patient requires.) While the head is pressing hard on the perineum you can estimate the dilatability of the perineum and when the point of maximum dilatation is reached and the head will not pass over the perineum without laceration, then do your episiotomy on either side (it makes very little difference which). If you have not already applied your forceps do so now and lift the head gently over the perineum.

This episiotomy wound is easy to repair. In repairing a laceration or episiotomy wound it should be the plan to unite the subcutaneous or muscular layers together with buried catgut and later the mucous membrane and skin.

The after-results of this episiotomy is that the perineum is firm and strong and will hold the pelvic organs in their proper place.

I know that occasionally you may misjudge the dilatability of the perineum, also the necessary depth of the episiotomy and may obtain lacerations other than the episiotomy. In such a case it is necessary to repair both the episiotomy and the lacerations.

Now, I do not mean to say nor to infer that all cases should have an episiotomy and a low forceps delivery, not even all primipara, but in those cases in which you can foretell of a laceration of importance.

Now, I can and do conceive of those cases in which a nick in the perineum or a slight mucous membrane tear might be preferable to an episiotomy but they all should be repaired.

I was interested in a few articles written recently by others along similar lines. A. T. Lask of Chicago in the *Journal of A. M. A.* reported 1,516 post natal examination in which there were 335 relaxed perineae. These examinations were made at the clinic and considerably over half of them were negroes.

Dr. Lask's study was that of prophylactic gynecology beginning six or eight weeks after delivery but I believe that prophylactic gynecology should begin before delivery

is completed. I agree with Dr. Lask in his statement that in only those who needed the episiotomy should it be done.

In think that in this connection a few statistics will be in order. I am reporting on a study of 1,437 cases. These patients, I would like to say, were not of the clinic type but of the highest and most intelligent class of private patients.

Of this number I had 607 lacerations of all types, from a mere nick in the mucous membrane to a third degree laceration. This is 41 per cent of the total. Also out of this number (1,437) I did 554 forceps operations, including high, mid and low, the great majority being low forceps. This makes 31 per cent of the total. Also out of this number I did 181 episiotomies or 12 per cent of the total.

In considering the results of any procedure it is necessary to consider the morbidity and the mortality. In a recent article by Paul W. Willits of Grand Rapids in the *Journal of the Michigan State Medical Society*, in reporting on the study of the morbidity, 1,691 full term obstetrical cases (using as a basis of morbidity a temperature of 100.4 per cent on two consecutive occasions after the first twenty-four hours) reports a morbidity of 14.7 per cent.

In considering my own cases I am of the opinion that this rule is too liberal and that it should be more strict, but reporting my cases on the same basis, I had a general morbidity from all causes without classification of 120 cases or 8.1 per cent, while in those with the episiotomies there was a morbidity of 4.4 per cent. It is true that there was one mortality in this list of episiotomies but it was in no way connected with the episiotomy for the infection did not begin till on the 15th day and then as a streptococcal sore throat.

Now, as to the after-results. Of this total number of 1,437 cases, 749 returned for post natal examinations at six or eight weeks post partum, and of this number (749), I have classed as a firm perineum 728, and as a relaxed perineum 21.

Since making this study I realize that there is no standard by which to measure a firm or relaxed perineum, but I considered that with the introduction of two fingers into the vagina, if the perineum grips the fingers firmly and there is good thickness to the perineal body and no rectocele is visible, I consider that a firm perineum.

Now, I feel that this good showing would not apply to the whole number of 1,437 cases for in going over these cases I was struck with the fact that there was only slightly over 50 per cent return for post natal examinations and I was also impressed with the fact that the great majority were

the young primipara and that many of the multipara did not return for further examinations. Nevertheless, I am greatly impressed with the advisability of doing an episiotomy and low forceps deliveries in all proper cases and of a thorough repair of all lacerations and episiotomies.

THE GENERAL ASPECT OF VESICAL CALCULI

ROBERT ROSEN, S.B., M.D.†
DETROIT, MICHIGAN

Vesical calculi formation is governed by the same laws as urolithiasis in general. It has been a heretofore unsolved problem productive of considerable research. Some extraordinary facts have been established.

Various theories have been advanced as the etiological factors.¹ The remarkable research on mice and guinea pigs is the first real landmark in the solution of this intricate problem. Urinary calculi were produced at will by Osborn and Mendel,² Fugi,³ McGarrison,⁴ and several other investigators by eliminating Vitamin A from the diet.

The colloidal theory of molecular coalescence in the presence of colloidal material was an important contribution by Rainey,⁵ Ord,^{6, 7} later by Ebstein,⁸ modified by Ord and Shattuck,^{9, 10} and amplified on a physico-chemical basis of crystallization by Shade,¹¹ later by Spitzer and Hillkowitz.¹²

The nuclear theory is responsible for many interesting controversies.^{1, 13, 14} The presence of epithelium or blood or various foreign substances such as catheters, sutures, hairs, cord, gum, artifacts, etc., act as nuclei. These, superimposed on an ulcerated surface, are conditions conducive to calculi formation.

Heredity and climate have been set forth as factors in the formation of stone. Infection as a rôle in the formation of calculi is the second important landmark in this problem. Hager and Magoth^{15, 17} have isolated a specific organism (*Proteus ammoniæ*) and have been able to reproduce vesical calculi with it under favorable conditions. Rosenow¹⁸ used the coccus group, while Israel¹⁹ and Ward²⁰ found *B. coli* as the offenders in their cases.

The frequent occurrence of foci of infection in parts suffering from calculi, and the almost universal finding of the infected kidney or bladder associated with stone lend weight to the belief that a specific stone-forming infection is at work in most instances. And yet there are cases of infec-

tion existing over a long period of time without calculi formation, and calculi occurs without infection.

It is accepted that crystals of sufficient size to form the nucleus of a stone, at one time acid, at another alkaline, are frequent in the urine,^{11, 12} and in the presence of pus, bacteria, or foreign bodies plus the metabolic factor, and we have the possibility of stone formation, especially if we have such a nucleus caught somewhere along the urinary tract. If this is true, it is evident the part heredity plays, for any transmitted deformity, regardless of how small, can cause retention. Autopsies, however, have shown numerous abnormalities that would be considered favorable to calculi formation, yet none was found, so that while the mechanical factors and obstruction cannot be ignored, we must consider that stones are formed under a great variety of conditions. Keyser¹ state that, from accumulated clinical data, it seems there is a "local mechanism at work in causing stones."

Thus we see one theory after another advocated to be discarded in whole or in part, and replaced by another, or in combination with one of the above theories. This is the present status. Therefore, we can postulate that *no one single factor is responsible for calculi formation.*

Calcium oxalate is generally accepted as the commonest calculi found on this continent, while in Europe uric acid or urates

†Dr. Robert Rosen is a graduate of the Michigan State College, 1913, S.B. M.D., 1918, Johns Hopkins Medical School. His specialty is urology and urological surgery.

seem to be the commonest. Factors causing alkaline decomposition in the bladder are more frequent than in the kidney, hence, the proportion of phosphatic stones is greater among vesical calculi.

Vesical obstruction, either embryologically in the structure of the prostate or urethra, are not so infrequent; hence, alkaline decomposition and infection occur. It is difficult to state the origin of vesical calculi. Generally speaking, renal calculi that can pass down the ureter will be extruded through the urethra without difficulty, unless obstructed by some anomaly, so that without intra-vesical obstruction, theoretically at least, there should be no bladder calculi of renal origin. The failure of such stones to leave the bladder is generally excellent proof of the existence of such an obstruction. As the stone is retained, it continues to increase in size in the bladder, and the composition may change, depending on the hydrogen ion concentration.

Calculi may and do originate in the bladder in a pure state or they may be due to foreign substances which may become encrusted on an inflamed surface, and thereby become the nuclei of calculi.²¹

Vesical calculi may exist for a considerable length of time and give little or no symptoms. This is especially true where they are associated with prostatic adenoma or a diverticulum where a residual urine exists. In these cases, the calculi are found on cystoscopy or at suprapubic cystotomy.

Vesical calculi may have all or just a few of the cardinal symptoms, such as pain at the vesical neck radiating to the meatus, sudden stoppage of urinary flow in full stream, hematuria, tenesmus, priapism, urgency, frequency and dysuria.

This vesical calculus pain is recognized by the fact that it is aggravated on motion, and especially at end of micturation. This pain can also be produced by pathology at the vesical neck in vesical tuberculosis or verumontanitis, neoplasm, and encrusted cystitis, so that to arrive at an accurate diagnosis a careful cystoscopic examination will enable one to eliminate these and arrive at the correct diagnosis.

The second important characteristic symptom of vesical calculi is the sudden stoppage of the urinary flow while in full stream. This is due to the sudden forcing of the stone against the vesical sphincter. Here, also, we can have this symptom pro-

duced in ulceration at the vesical neck.

Another common symptom is frequency in the daytime on standing in contradistinction to prostatic adenoma, where nycturia is the rule: *i.e.*, in the reclining position. This symptom also occurs in all conditions associated with vesical orifice pathology.

Dysuria and tenesmus occur depending on the size of the stone and its pressure against the ulcerated surface at the vesical orifice, and as a result we may have hematuria, microscopic or macroscopic, usually terminal; and pyuria is found in amounts depending on the amount of blood and the type of infection present, which is also true of the albuminuria. Priapism is a symptom found mostly in children and young individuals.

DIAGNOSIS

With the modern innovations, the diagnosis is not difficult. A complete history should be taken in every case. Particular attention must be given to the urological tract. The history may give us the first clue as to the real nature of the lesion in question. A previous history of renal colic or fixed pain or passage of gravel is indicative of calculi. Hematuria and pyuria are important landmarks in arriving at a diagnosis of vesical calculi. This is finally clarified by a cystoscopy. A physical examination may not elicit anything definite. A complete urinalysis and acid-fast smears are made, and from these findings our next course of procedure is evident. Cystoscopy, cystograms, pyelograms, X-ray or intravenous urography is performed.^{23, 27} If the individual is hypersensitive and instrumentation is difficult, it might be best to X-ray the patient first and then have a cystoscopy performed under an anesthetic. Here, it is essential to explore the bladder well to ascertain the number of calculi, size, shape, etc. Difficulty may be encountered by the presence of a hypertrophied trigone or where the calculi lay in the diverticulum. Again, the cystoscope, when brought in contact with the stone, gives a grating or metallic sound. When the calculus lies in places not accessible to the cystoscope, a cystogram generally photographs the stones. The urine may be acid or alkaline, and as a result the urates and oxalates are predominant if the former is the case, and phosphates if the latter is the findings.

A differential diagnosis may disclose ul-

cerated vesical orifice, infections, prostatitis, neoplasms, diverticulum, tuberculosis, or strictures of the urethra and ureter, and foreign bodies.

TREATMENT

With our modern improvements in diagnosis and treatment, it still requires a nicety of judgment in deciding the proper method of treatment to apply to a given case. We must not only consider the immediate need, but most look forward to the future welfare of the patient. Unless we can remove the cause, we must expect recurrences. Our treatment may be separated into: (1) prophylaxis, (2) medicinal, (3) instrumental, and (4) operative.

1. Prevention consists in the removal of obstructions and all conditions that tend to calculi formation as: strictures, infections, diverticulum, bladder and prostatic obstructions, etc. The precipitation of urinary salts must be prevented. To do this, foods rich in Vitamin A, as milk, butter, spinach, turnip greens, carrots, yellow corn, etc., should be recommended. The patient should be instructed in the use of litmus paper in order to change the hydrogen ion concentration, by suggesting large quantities of water, acidifier, or alkalies.

2. The medicinal treatment consists in the administration of drugs that should dissolve the stones. A great variety of chemicals have been tried. Medicinal waters have been advised. Health resorts have exploited the merits of their waters, and may have benefited some, but in general the effect is questionable because the chemical character of the human organism enters into the reaction. Hence, we get results *in vitro* that we do not obtain *in vivo*. Sodium phosphate, hexamethylenetetramine, sodium bicarbonate, piperazin, and turpentine are some of the drugs that have been taken internally to dissolve calculi. Several cases of gravel not included in this series have been treated successfully using the latter drug.

The Bulgarian bacilli has been injected intra-vesically with benefits in some cases of encrusted cystitis.²¹ Each remedy has been strongly advocated, but at best is of uncertain value, so that while the theory of dissolving the calculi is logical, it has met mostly with failure.

3. The instrumental treatment is a most fascinating chapter in the development of

modern urology. For a complete history of this subject I refer the reader to the chapter on "Stone in the Bladder," Modern Urology, Volume 11, by Cabot, pages 144 to 172. There the subject is unfolded from its earliest time to the present.

In deciding the course of treatment to follow for vesical calculi, we must remember that small stones are often passed voluntarily during micturition. Even large stones sometimes pass without difficulty, so that it is advisable to wait in uncomplicated cases for them to pass.

Given a definite uncomplicated case of a simple, small calculus, litholapaxy is the method of choice. Small calculi are removed by Young's cystoscopic rongeur or the operating cystoscope, or where the calculus has to be crushed, the ordinary lithotrite is used, followed by evacuation of the fragments. Having decided to do a litholapaxy, the surgeon has the choice of a general, local, or spinal anesthesia.

When we find a complicated calculus the removal of the stone becomes secondary.^{28, 29} A suprapubic lithotomy is performed and the stone removed at the same time with the complication.^{28, 29} Neglect to remove these obstructions, whether prostatic adenoma, diverticulum, stricture, or infection, or incomplete removal of the fragments will tend to a recurrence. Therefore, we must not only remove the calculi, but it is essential to remove the contributing factor as well. Let us consider the pros and cons of litholapaxy and suprapubic lithotomy in the treatment of calculi.

The advantages of litholapaxy over suprapubic cystotomy are obvious:

1. Shorter convalescence period.
2. In cases of recurrence, the same procedure can be used.
3. Mortality almost negligible.
4. Safe procedure in competent hands.
5. Less danger of infection—less surface involved.
6. Requires less anesthesia.
7. Less expensive.

Complications:

1. Prostatitis and epididymitis.
2. Incomplete removal of crushed stones and leaving fragments as a nucleus for new calculi formation.
3. Perforation of bladder.

Contra-indications:

1. Large calculi.
2. Contracted bladder.
3. Irritable bladder.
4. Vesical complications—pathology of the vesical and adnexa.

Advantages of cystotomy over litholapaxy:

1. Operation meets other conditions under direct vision.
2. Where stone is large, it is readily removed intact.
3. In irritable, contracted bladders, little difficulty is offered.

Complications:

1. Drainage in septic bladders.
2. Infection of prevesical space.
3. Urinary fistula.
4. Pyelonephritis, septicemia, peritonitis.

Contra-indications:

1. Tubercular processes.
2. Renal calculi.
3. Spinal cord bladder.

Anesthesia:

1. Local, spinal, rectal (avertin), general ether or gas, sacral block.

4. Sanford's²⁸ discussion of treatment of vesical calculi is well worth reading. Young¹³ and Cabot's¹⁴ articles on this subject will also repay the reader to peruse them. La Roque describes a new method of approach to the bladder.³⁰

RESUME AND CONCLUSIONS

The advantages of litholapaxy over cystotomy are so obvious that in uncomplicated cases it should be resorted to more often. All that is necessary is a good lithotrite, sensitive hands, sound judgment, and proper anesthesia. With these at our command, we should expect good results. This is true in ordinary simple cases; in complications, we have to operate, but we must observe all the facts, and if we disregard them we are courting disaster. As for example, case 6 of our series. Here we have a spinal deformity, a hydronephrotic tuberculous kidney on one side, and small calculi on the opposite side with a contracted tubercular bladder holding only 75 to 100 c.c. This patient has had several renal attacks lately

and has passed several calculi. Should we do a cystotomy and invite a flare-up of the tuberculous process? In view of the fact that the calculus was large and a contracted bladder present, cystotomy would certainly seem the method of choice. We, however, did not feel justified to do so, as a recurrence seemed almost a certainty in this case. That influenced our judgment and a litholapaxy was done instead. The stone was partially crushed, and as the patient had vesical distress following this, he was examined by the X-rays. It did not show perforation as suspected (Plate 5). He developed a pericystitis in a few days. We operated, and a short time later he died. At the autopsy we found the right kidney substance replaced by a cheesy pus sac. On the opposite side we found several small calculi. The bladder wall was injured. This proves the rule of the dictum already laid down, never to do a litholapaxy when we have a large calculus and a contracted bladder. Nevertheless, we feel that when the X-ray shows associated nephrolithiasis, that litholapaxy should be done as it can be repeated for recurrences without the necessary hospitalization as would be required in case of suprapubic cystotomy.

The other cases in this small series were uneventful. They all were done in the office using local anesthesia with the exception of case 5 where we did a spinal. This was the only case that did not return home the same day.

In this series we found four cases (cases 2, 4, 6, 7) had urethral strictures. One case (case 1) had a foreign body. Four cases (cases 1, 2, 4, 5) were confined to the bladder alone. Two cases (cases 3, 6)

TABLE OF CASES

Case Number	Infection	Blood	Obstruction	Complications	Renal Colic
1.	x	x	Piece of cord	None	None
2.	x	Microscopic	Strictures urethra	None	None
3.	None	x		Renal calculi	x
4.	x	x	Urethral strictures	Prostatic calculi, adenoma	None
5.	None	Microscopic		Diverticulum	None
6.	x	x	Urethral strictures	Renal calculi, renal hydro-nephrosis, renal tuberculosis, vesical contraction	x
7.	None	Microscopic	Urethral strictures	None	x

x signifies positive findings.

were complicated with renal calculi. In three cases the urine was clear and no infection was present (cases 3, 5, 7). Four

showed microscopic blood while four (cases 1, 3, 4, 6) showed macroscopic traces. All showed hematuria in some form in this



Fig. 1. Case 5. Plain roentgenogram. Small single calculus.

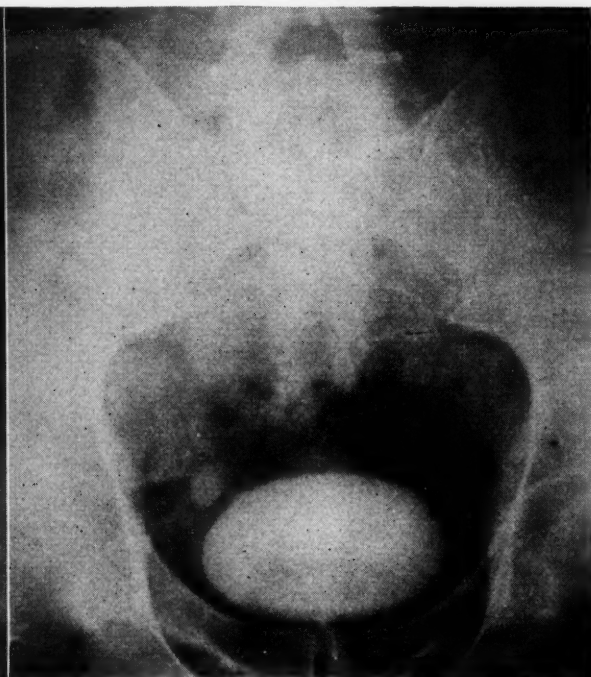


Fig. 2. Cystogram demonstrating small diverticulum and narrow neck.



Fig. 3. Case 6. Plain roentgenogram showing a large laminated calculus and several small ones and a few phleboliths.

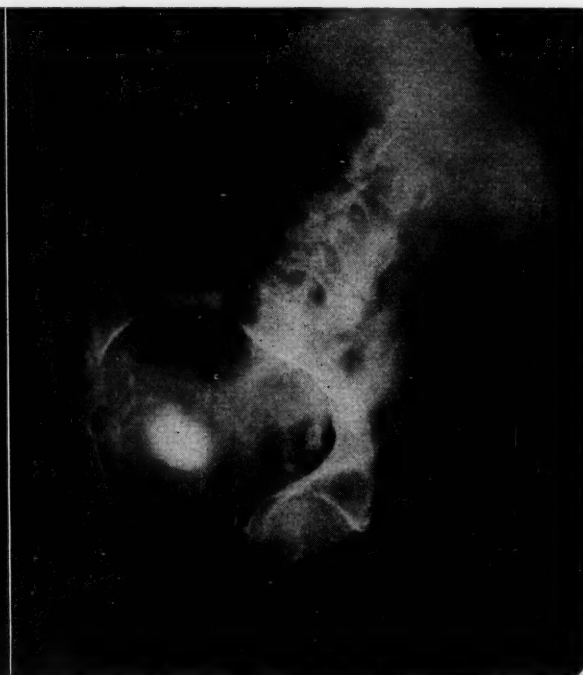


Fig. 4. Case 6. Intravenous urogram demonstrating left tubercular hydro-nephrosis and hydro-ureter.

cases gave no history of renal colic (cases 1, 2, 4, 5) while three cases (cases 3, 6, 7) gave evidence of passage of stone from kidney to bladder. Three cases (cases 2, 5, 7)

series. From this small series, to draw any definite conclusions would be unconvincing. We feel that even though litholapaxy in this series showed 14.3% failure, it was not due

to the method, but to the fact that we disregarded some of the conditions necessary to perform a litholapaxy with safety. In conclusion, we feel that litholapaxy is a safe

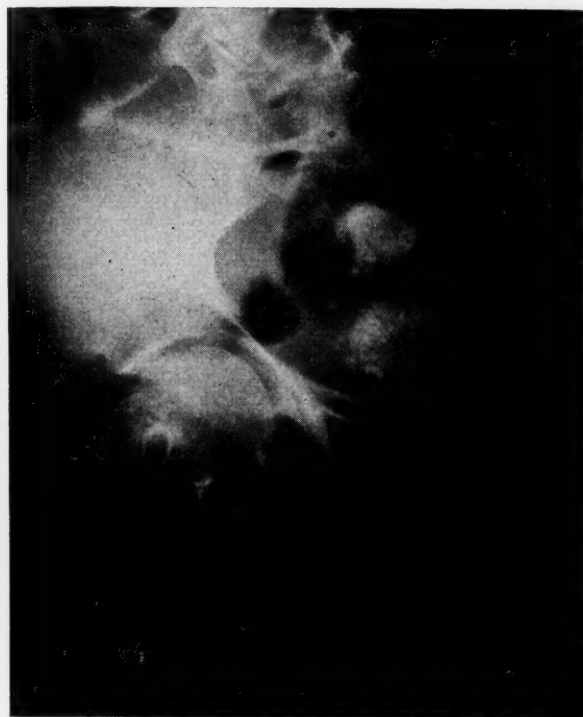


Fig. 5. Case 6. Plain roentgenogram showing crushed calculi confined to bladder.

and reliable method to use in properly selected, uncomplicated cases.

CASE REPORTS

Case 1.—Male, 26, W., 1921. History of masturbation, complained of frequency, hematuria, dysuria, infection present. Cystoscopy showed solitary calculi in markedly inflamed bladder. Litholapaxy was done using local anesthesia. Crushed stone and found a piece of cord in the center. Complete recovery.

Case 2.—Male, 42, W., 1927. Numerous attacks of Neisserian infection. Complained of frequency, dysuria, nycturia. Infection present. Microscopic blood. Found strictures. These were dilated. Cystoscopy disclosed small calculi. Litholapaxy was done using local anesthesia. Uneventful recovery.

Case 3.—Male, 26, W., 1922. Complained of painful micturition. Hematuria. No infection found. Cystoscopy disclosed large stones. X-ray also showed calculi in both kidneys. Refused operation. Operation done five years later elsewhere. Died.

Case 4.—Male, 62, W., 1927. Complained of fre-

quency, hematuria, burning, nycturia ten or fifteen times. Mixed infection present. Found strictures which were dilated. Cystoscopy disclosed encrusted cystitis and a stone imbedded in vesical neck with slight prostatic adenoma. We advised suprapubic cystotomy but the patient refused an operation and insisted upon litholapaxy. This man had not worked for eighteen months. Injected emulsion of *Bulgarus bacillus* with improvement of the cystitis, but had no effect on the calculus. We performed partial litholapaxy at eight different times because of the location of the stone being imbedded, using novocain only the first three times. Gained 35 pounds and returned to work. Another remarkable part of this case was that the patient also refused the use of the evacuator and passed large quantities of the crushed fragments voluntarily. Saw this patient in May, 1931. No recurrence. Uneventful recovery.

Case 5.—Male, 39, W., 1930. Complained of itching in the urethra following a Neisserian infection for nine months. Frequency during the day. Stoppage of urine during passage. Microscopic blood found. Cystoscopy disclosed a small calculus lying on the trigone (Fig. 1). A diverticulum was found. A cystogram was done and verified the cystoscopic findings (Fig. 2). It was small and well drained and we decided here also to do a litholapaxy as there were several suspicious shadows in the kidney region. Used nupercain, spinal. Removed calculus to the meatus and then crushed it. Uneventful recovery.

Case 6.—Male, 43, W., 1931. Numerous attacks of Neisserian infection. Complained of frequency during the day. Dysuria (painful urination), burning cystitis off and on for twelve years. Tubercular hip. Poliomyelitis (deformed leg), deformed spine, scoliosis, lordosis. Mixed infection. Found strictures. These were dilated and obtained metallic click. Cystoscopy disclosed inflamed bladder. Unable to locate calculi. X-ray showed large laminated calculi and several small ones (Fig. 3). Left kidney hydronephrosis and hydro-ureter (plate 4). Calculi shadow was seen on right side in right kidney region. Uroselectan did not add any other information (Fig. 4). Had several renal colic attacks and passed several calculi. As a result, we did not feel justified to do a cystotomy as a recurrence seemed almost a certainty. Hence, contrary to the dictum not to do a litholapaxy in a contracted bladder and a large calculus, we decided to do a litholapaxy, following which he developed a pericystitis. In view of the possibility of a perforation, an X-ray was taken before the operation. No perforation was found (Fig. 5). The patient died.

Case 7.—Male, 32, W., 1930. Several attacks of Neisserian infection. Complained of severe spasmodic pain. Renal colic. Found strictures. These were dilated. No improvement in symptoms. Cystoscopy showed small calculi. Put on forced fluids and changed diet. Litholapaxy performed. Uneventful recovery.

NOTE: A bibliography of thirty items accompanies this paper. The bibliography will appear in the author's reprints.

STREPTOCOCCUS MENINGITIS—REPORT OF A CASE
WITH RECOVERY

NORTON CANFIELD, M.D.†

FROM THE DEPARTMENT OF OTOLARYNGOLOGY, UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

Streptococcus meningitis is still considered an extremely grave disease, usually resulting in death within a few days. However, from time to time well authenticated cases of recovery have been reported. In March, 1931, Rosenberg and Nottley¹ adequately summarized the reported recoveries, and added one case. With their presentation is also included a summary of the various types of treatment including the surgical procedures, which have been advocated. Thirty-three cases of streptococcus meningitis, substantiated by bacterial culture, are on record at the University of Michigan Hospital, all of which, with one exception, resulted in death.

Mr. O. entered the University of Michigan Hospital June 24, 1929. History: severe head cold seven weeks ago followed shortly by pain in the right ear, and the appearance of a purulent otitic discharge which persisted until admission. Two weeks before admission, the patient had chills, fever, extreme fatigue, with pain over the right eye and right occipital region. He was confined to bed, and lumbar puncture revealed a turbid spinal fluid under increased pressure.

Examination: Well developed acutely ill youth of seventeen, with pain along the spine, congestion of the nasal and pharyngeal mucosæ, tonsils absent, left tympanic membrane normal. Right external auditory canal was stained with mercurochrome, which prevented adequate examination of the middle ear, but there was no visible discharge. Neurological examination revealed diminished lateral deviation of the eyes, Kernig's sign present, and stiffness of the neck. There was considerable neuroretinitis of the right fundus, and two diopters of papilledema of the left optic nerve head. Lumbar puncture demonstrated increased spinal fluid pressure, xanthochromia, and turbidity. Nonne-Apel't reaction: phase 1, marked ring; phase 2, marked opalescence. There was normal reduction of sugar, cell count 1000 plus per cubic millimeter. Microscopically the fluid showed many pus cells, and bacteriologically, a few short-chained Gram-positive cocci. Culture revealed streptococcus hemolyticus. Patient's temperature was 101°, pulse rate 96, respirations 22 per minute. X-ray studies of the mastoid regions showed the left temporal bone to be within the limits of normal, and the right temporal area showed "cells poorly defined, trabeculae hazy, inner table of the skull adjoining this region seems to have broken through" (Dr. P. M. Hickey). A diagnosis of streptococcus meningitis was made. Surgical interference with the right mastoid was considered, but was decided against, because of the grave condition of the patient.

During the first week in the hospital, the patient complained of severe pains along the spine. He was very restless, and the temperature varied from normal to 103° F. An urticarial rash developed over the entire body, which disappeared in twelve hours. Three days after admission there was a temporary relief from the back pain, but during the next few days there was severe pain in the legs. Neck stiffness and Kernig's sign remained.

†Dr. Canfield is a graduate of the University of Michigan Medical School, 1929, and is at present an instructor in the Department of Otolaryngology.

One week after admission lumbar puncture revealed 650 cells per cubic millimeter, and the next day only 100 cells. Bacterial culture was again reported by the Department of Bacteriology as positive for streptococcus hemolyticus.

Another lumbar puncture performed two days later procured fluid which contained 170 cells per cubic millimeter. This specimen was reported bacteriologically negative. On this day anti-streptococcus serum (Mulford) was administered for the first time; 5 cubic centimeters intradurally and 10 cubic centimeters intravenously. The next day 10 cubic centimeters of the same type of serum was given intradurally and 10 cubic centimeters intravenously.

Lumbar puncture was performed daily for the next twelve days, and in each instance the fluid was reported bacteriologically negative. The patient gradually improved. The spinal fluid count gradually dropped to between 70 and 80 cells per cubic millimeter. Forty-five days after admission the patient was discharged in apparently normal health, having lost fifteen pounds weight. He was neurologically negative, and the only positive finding was that of 70 cells per cubic millimeter in the spinal fluid.

Six weeks after discharge the patient returned for re-examination. In the meantime he had been leading a normal life, gradually gaining in strength. Examination showed the right tympanic membrane to be normal. X-ray of the right mastoid showed it to be aerated. Neurological examination was negative. There were 100 cells per cubic millimeter in the spinal fluid.

The patient was reported to be in good health nine months after discharge from the hospital. Examination in the University Hospital Clinic nineteen months after dismissal showed him to be normal. A more recent communication states that he has not been ill since he left Ann Arbor nearly two and one-half years ago.

This is apparently a case of streptococcus meningitis with recovery.

REFERENCE

1. Rosenberg, Lester, and Nottley, Harold W.: Recovery from streptococcus meningitis. *Ann. of Int. Med.*, 4:No. 9, March, 1931.

UNDULANT FEVER (BRUCELLA INFECTION) IN CHILDREN*

JOHN F. SANDER, M.D., F.A.A.P.†

LANSING, MICHIGAN

During the past twelve years a tremendous amount of investigative work has been done in the United States and Northern Europe with respect to *Brucella* infection in man. Evans¹ in 1918 demonstrated that the causative agent, *Brucella abortus* of Bang's disease of cattle, commonly known as infectious abortion and the organism, *Brucella melitensis*, which has long been known as the cause of undulant fever in man in the Mediterranean countries, were closely related. There has been considerable confusion in the minds of many workers as to whether the two organisms are separable and distinct species or one and the same organism. In recent years certain laboratory tests have been developed which easily distinguish between the organisms. There are in the *Brucella* group three distinct species, namely, *Brucella abortus* of which the cow is the host, *Brucella melitensis* of which the goat is the host and *Brucella suis* of which the hog is the host. These organisms have been found to infect all domestic and many wild animals.

Brucella is transmitted to man by direct contact with infective material from infected animals, or the ingestion of raw products containing the organism.

A. V. Hardy² and later W. Simpson³ have collected large series of cases of *Brucella* Infection in man, and have given comprehensive findings as to the symptomatology, diagnosis, and clinical course of this disease. Simpson states that approximately 25 per cent of his cases occurred in individuals of pediatric age. Recently Hubbard⁴ of Boston has reported a case of *Brucella Abortus* Infection in a child of six years of age. Various reports have come from England, Denmark, Sweden and Germany of instances of *Brucella* Infection in children. Anderson and Pohl⁵ reported three cases in children in 1931. The youngest cases of *Brucella* Infection in the literature are those of a child of one year of age reported by Kohlbry⁶ in 1929 and of a twenty months old infant reported by Williamson.⁷

We wish here to impress on the profession that this disease is undoubtedly more

common than is suspected, and that with more thought to the possibility of this disease and with improved methods of diagnosis and treatment many children so afflicted will be more promptly recognized and treated.

During the past six months with the valuable advice and assistance of Professor Huddelson of Michigan State College, one of the pioneers on the work of *Brucella* Infection, we have diagnosed and successfully treated six children suffering with Undulant Fever. (Five other children are under treatment at the present time.) These patients ranged in age from seventeen months to eleven years. These children were all from the higher type of American home. The diet of each one had been well supervised at all times. However, in each case there was a history of having either raw milk at some recent period, or of eating raw eggs in the form of egg-nogs at frequent intervals.

The symptomatology of these patients varied not at all from that described in the articles already mentioned which dealt largely with Undulant Fever in adults. The constant symptoms were lassitude, ease of fatigue, weakness and anorexia. The constant signs were intermittent fever, sweating and loss of weight. One patient (B. M.) complained of dizziness, nausea, and vomiting at intervals. She also had severe headaches and generalized joint pains. A persistent diarrhea (watery pea green stools) obtained for three weeks preceding treatment. One (J.D.) suffered severe chills and fever at such regular intervals that she was tentatively diagnosed malaria, admitted to the hospital, and the blood carefully studied for plasmodia malaria, which of course were not found. None of these pa-

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†Doctor Sander was graduated from the University of Michigan in 1923. He served two years internship in Pediatrics at the University of Michigan Hospital. He was assistant in Pediatrics at Harvard Medical School, 1925-1926. He was instructor in Pediatrics at the University of Michigan, 1926-1927. Since 1927 he has been engaged in private practice of Pediatrics at Lansing, Michigan.

tients was ever acutely ill and even during the period of extremely high temperature did not impress clinically as being more than indisposed (exception being patient J. D. during a chill).

The urine was negative in all cases except for the presence of a slight amount of albumin during periods of hyperpyrexia. With one exception (J. D.) each patient showed a mild decrease in the white cell count with a relative lymphocytic increase. The hemoglobin and red blood cell count varied but little from normal in any case. The tuberculin test (Von Pirquet) was uniformly negative. Widal test against typhoid was negative in each patient. The agglutination test for Brucella Infection was negative in each case. Blood culture was also negative. Stool and urine cultures were persistently negative, in each patient.

The differential diagnosis of Undulant Fever in children is of course quite a difficult task. The many diseases of a subacute and chronic nature to which children are heir persistently complicate the arrival at an early date of the correct diagnosis. Among the more common conditions which are frequently confused we find influenza, and at least in certain localities the blanket term "intestinal-flu." Typhoid and paratyphoid fever, pyelitis, tuberculosis, rheumatic fever, and gastro enteritis must be ruled out. Occasionally it is also necessary to refute an almost obvious diagnosis of malarial fever before the correct diagnosis of Brucella Infection can be established.

The diagnosis in these patients was arrived at on the basis of a positive intradermal test using a pure nucleo-protein prepared from cells of the organism and the absence of Brucella opsonins as determined in a phagocytic system with citrated whole blood.

The cases reported in this paper were treated with an agent called Brucellin developed at the Central Brucella Station at the Michigan State College. This agent has been used in treating about 100 acute and chronic cases of undulant fever with satisfactory results.

The results obtained from the use of Brucellin and the nucleo-protein intradermal and Brucella opsonic test, will be reported on in a forthcoming paper from the Central Brucella Station.

The treatment of undulant fever in man has long been a perplexing problem to the

clinician. Many agents have been reported upon in the past which appeared to give satisfactory results in certain cases. When these treatments were extended to others, the results have been discouraging. The excellent result of a certain agent in one or two cases may be accounted for from the course of the disease. That is, in many instances a patient's recovery takes place by crisis. If by coincidence an agent was used in the treatment of the disease at this particular time, it would be natural to ascribe the recovery to the agent used, when in reality recovery followed on the natural course of the disease. It is only from the successful application of any method of diagnosis and treatment on a large number of patients and in many hands that any positive conclusions can be drawn.

CASE REPORTS

Case 1.—Patient M. B., aged seventeen months, female; approximate date of onset, August 15, 1932. Presenting symptoms: General malaise, loss of appetite, depleted activity, rapidly developing pallor, weakness, sweating and chilliness, constipation, loss of weight and temperature varying from normal to 104 degrees.

She was skin tested with nucleo-protein of Brucella Abortus on August 22, 1932. This was extremely positive. Phagocytosis for Brucella Abortus at this time was negative. Agglutination for typhoid bacilli and Brucella Abortus was negative. The urine showed a slight amount of albumin, otherwise negative. The white count was 8,400, with a relative lymphocytic increase. The tuberculin test was negative.

She was given the following injections of Brucella: .2 c.c. August 14; 0.5, c.c. on August 17; 1 c.c. August 20 and 1 c.c. August 23, 1932. Following the first two injections there was no local or general reaction. Following the last two, there was some rise in temperature, and some increase in general malaise. Both rapidly returned to normal. Twenty-four hours after the last injection the patient's temperature was normal and remained so thereafter. She rapidly improved in every way. There was full return to normal activity; she developed a good appetite; there was no further sweating, and elimination was normal. She rapidly regained her lost weight. Ten days after the last injection she showed high phagocytic activity for Brucella Abortus. Her general good health has continued to the present time.

Case 2.—Patient M. J. D., aged three years, four months, female. Approximate date of onset was June 1, 1932. At that time there was an irregular, intermittent fever. There were no other symptoms except an increasing fatigue in the afternoon. This continued for about three weeks, at which time she began to develop chills, which occurred at three to four day intervals—and usually between one and three o'clock in the afternoon. In addition, there was weakness and sweating following the chills. She complained of headache and backache. Extreme anorexia and constipation developed. The patient was very irritable during the attacks of fever. There was loss of weight.

About July 1, 1932, the patient was examined, and tentatively diagnosed Malarial Fever. She was admitted to the hospital for study, and the blood examined before, during and after a chill for plasmodia malariae. None was found. However, at this time the patient became symptom-free, and had no more rise in temperature or other symptoms for four weeks. At this time the general symptoms before mentioned returned with increased severity. She was skin tested with nucleo-protein of *Brucella Abortus* on August 12, 1932. This gave an extremely positive reaction. Blood taken at this time showed a negative phagocytosis for *Brucella Abortus*. Agglutination test was negative for typhoid and *Brucella Abortus*. The urine was negative. White blood cell count showed an increase to 12,500 with a polymorphonuclear relative and absolute increase. The tuberculin test was negative.

The following injections of Brucellin were given: August 12, 2 c.c.; August 15, .5 c.c.; August 20, and August 24, 1.0 c.c. There were no local or general reactions following any of these injections. The patient had no more chills. Following the first injection, there was no further rise in temperature. Her appetite improved. The irritability decreased definitely, and she made a rapid return to normal activity. Ten days following the last injection, her blood showed high phagocytic activity for *Brucella Abortus*. Her general improvement has continued to the present date.

Case 3.—Patient D. H., aged five years, female. The approximate date of onset was April 1, 1932. At that time the parents described that they noticed an increase in fatigue with general weakness, lack of pep, and increasing pallor. There was, early in the course of this disease a rise in temperature, varying from one to three degrees, at irregular intervals. There was profuse sweating during the fever, and occasionally night sweats. No chills were noticed. There was complaint of backache and pain in the knees. The appetite was very poor, and there developed a rather severe constipation. The patient lost weight rapidly.

This condition persisted, with an occasional remission of several weeks, until about the first of September. At this time, all of the aforesaid signs and symptoms recurred and in an increased severity. She was first examined on September 19, 1932. At this examination she gave a very positive skin test to the nucleo-protein of *Brucella Abortus*. The blood showed negative phagocytosis for *Brucella Abortus*. Agglutination was negative for typhoid bacilli and for *Brucella*. The blood culture was negative. The urine was negative. The white cell count was 7,600. The differential showed a slight lymphocytic increase. The tuberculin test was negative. The rest of the physical examination was essentially negative.

The following injections of Brucellin were made: September 20, 2 c.c.; September 23, 0.5 c.c.; September 26, and September 30, 1.0 c.c. A definite improvement in the patient's general condition showed after the second injection. There was disappearance of the weakness and fatigue. There was no more rise in temperature. The appetite improved. There followed rapid resumption of all activities and very satisfactory gain in weight. Ten days after the last injection of Brucellin, the patient's blood showed high phagocytic activity for *Brucella Abortus* in vitro.

Case 4.—Patient R. M., aged six years, male. The approximate date of onset was May 1, 1932. The presenting symptoms were—increasing inactivity, weakness, ease of fatigue, restlessness, and irritability, chilliness, general aching, and loss of appetite with an increasing constipation. Intermittent mild fever developed and he slowly but definitely lost

weight. This condition continued, with mild remissions and exacerbations throughout the summer months, until September 1, 1932. During this time his diagnosis had been "intestinal flu." He was skin tested with nucleo-protein of *Brucella Abortus* on September 1. This was very positive. His blood showed no phagocytic activity for *Brucella Abortus*. The agglutination tests for typhoid bacilli and *Brucella Abortus* were negative. The urine showed a very slight trace of albumin, otherwise was negative. The white cell count was 6,500 with a relative lymphocytic increase. The rest of the physical examination was essentially negative.

The following injections of Brucellin were made: September 3, .2 c.c.; September 6, .5 c.c.; September 9 and September 12, 1.0 c.c. Following the first injection there was a definite increase in fever, but following the other three there were no symptomatic or febrile reactions. The patient began to improve in every way following the first injection of Brucellin. There was definite increase in appetite. The lassitude, inactivity, ease of fatigue, restlessness and irritability rapidly disappeared. Within two weeks after the beginning of treatment the patient had returned to the normal activities of a boy of six years of age. Ten days after the last injection of Brucellin his blood showed a high phagocytic activity for *Brucella Abortus*. The general improvement and good health has continued to the present date.

Case 5.—Patient E. S., aged eight years, male. The approximate date of onset was June 1, 1931. At this time there was noted a rapidly developing lassitude and ease of fatigue. He steadily lost weight. Intermittently he complained of headache, backache, and abdominal pain. There was an irregular though daily elevation of temperature. At times all symptoms were markedly increased in severity. After a period of relative good health a remission would obtain during which time all the above symptoms would return with increased severity. Exacerbations and remissions occurred at various intervals until May, 1932, at which time his tonsils and adenoids were removed. This was again followed by a period of freedom from symptoms until the time of the present examination. During the eighteen months of his illness he was variously diagnosed as—sunstroke—fractured skull—epidemic meningitis—brain tumor—tuberculosis—worms—appendicitis—intestinal flu—and septic tonsils and adenoids. The patient was skin tested with nucleo-protein on October 20. This was very positive. Phagocytic activity for *Brucella Abortus* was very low. Agglutination tests for typhoid bacilli and *Brucella Abortus* were negative. The tuberculin test was negative. White cell count and differential were normal. Urine was negative. The physical examination was otherwise normal. The patient, however, was highly emotional, apprehensive and excitable.

The following injections of Brucellin were made: 0.3 c.c., October 21; 0.5 c.c., October 24; 1.0 c.c. on October 27 and 30. Definite improvement was noted in the patient's mental and physical condition after the first two injections of Brucellin. Ten days after completion of treatment the blood showed a high phagocytic activity for *Brucella Abortus*. This general improvement has continued to the present time. There has been no recurrence of any of the symptoms aforementioned.

Case 6.—Patient B. M., aged eleven years, female. Approximate date of onset was July 1, 1932. She gave a history of dizziness, weakness, sweating, chilliness at times, and general aching. She complained of headache, backache and abdominal pains. There was loss of appetite, but a persistent diarrhea. An intermittent fever developed. She suffered

severe night sweats. There was nausea and vomiting at intervals. She rapidly lost weight. She showed an emotional instability.

On August 15, 1932, she was skin tested with nucleo-protein of *Brucella Abortus*. This was extremely positive. All symptoms were aggravated by the intradermal test. Her blood at this time showed negative phagocytic activity for *Brucella Abortus*. Agglutination tests for typhoid bacilli and *Brucella Abortus* were negative. Blood culture was negative. The urine showed a slight trace of albumin. The white count was 9,800 with a relative lymphocytic increase. Tuberculin test was negative.

The following injections of Brucellin were made: August 24, 0.2 c.c.; August 27, 0.5 c.c.; and 1.0 c.c. each on the 30th of August and the 3rd of September. Following the first four injections of Brucellin the patient was much improved but still tired easily and showed lack of pep. On September 13 her blood showed only a slight increase in phagocytic activity against *Brucella Abortus*. On September 18 and 21, she was given 2.0 c.c. of Brucellin. Ten days later the blood showed high phagocytic activity. Rapid improvement followed, which has continued to the present time.

DISCUSSION

1. We believe that the incidence of *Brucella* Infection is much more common in children than is suspected—also that a great many of these children are being persistently misdiagnosed as—influenza or “intestinal flu”—summer complaint—rheumatic fever—malaria—tuberculosis—adenoid and tonsil infection—gastro-enteritis—worms—teething—and “what not.”

2. We desire to urge that children presenting a clinical syndrome similar to any of the above, and in whom these other common diseases can be positively ruled out, be

given the nucleo-protein skin test (Huddleson) and their blood tested for phagocytic activity against *Brucella Abortus*. If their blood cells show lack of phagocytic activity, we believe they should be given intramuscular injections of Brucellin until their cells show high phagocytic activity for *Brucella* in vitro.

3. An agglutination test should be done with *Brucella Abortus* in every case, but if the test is negative, it does not necessarily follow that the patient does not have undulant fever. Other tests are necessary to positively eliminate this disease. These tests are the intradermal and opsono-cytophagic test.

4. It is hoped that this report will encourage practicing physicians to avail themselves of this method of diagnosis and treatment whenever the occasion and need presents.

I wish to thank Doctor I. Forest Huddleson of the Michigan State College for his most valuable help in the preparation of this study. I also wish to thank him for his suggestions and advice in the treatment of these little patients.

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SIGNIFICANT HEMORRHAGIC RETINAL LESIONS IN BACTERIAL ENDOCARDITIS (ROTH'S SPOTS)

William Brown Doherty and Max Trubek, New York, call attention to the fact that the characteristic elliptic retinal hemorrhages with white centers occur in the bacterial endocarditides, acute and subacute, and in the severe anemias, notably pernicious anemia. The discovery of this lesion, because of its significant appearance, may aid in early diagnosis. The lesion occurs in both eyes, with a little greater frequency in the left eye. The lesion has little prognostic value in subacute bacterial endocarditis; in several instances it had appeared and disappeared in successive crops many months before death. The authors suggest that the designation “retinitis of endocarditis” might after further study be appropriately applied.—*Journal A. M. A.*

GALLSTONES IN INFANCY

A. A. SKEMP, La Crosse, Wis. (*Journal A. M. A.*, Jan. 10, 1931), relates the case of a child, aged 17 months, who took sick with convulsions and died about six hours after the onset of the convulsions. Permission for a postmortem was obtained and an extensive pneumonic process involving the lower part of the left lung was found. The abdomen was normal except that the gallbladder was slightly distended and contained stones. The gallbladder contained numerous stones, the largest from about 5 to 10 mm. in diameter. Prior to its death, the child had had no digestive disturbances and had all the appearances of a healthy and vigorous child. It had been breast-fed and from the time of its weaning until its death there was nothing unusual in the dietary.

AN IMPORTANT CHEMO-THERAPEUTIC POSSIBILITY

THE LIBERATION OF NASCENT IODINE BY ROENTGEN-IRRADIATION AFTER THE INTRAVENOUS ADMINISTRATION OF AN IODINE COMPOUND

BOLAND HUGHES, M.D., and ARTHUR BINZ, Ph.D.*
BERLIN, GERMANY

In 1929 new organic iodine compounds were synthesized in which the iodine was loosely bound to the molecule. Most of the compounds were unstable and toxic. In the investigation of many of them, experimental animals, having been given a compound intravenously, were subjected to diagnostic X-ray exposures for evidence of iodine accumulation in the large parenchymatous organs. It was observed that a solution of one of the compounds which had been accidentally exposed to the action of X-rays, became brown in color, and that the change was due to the liberation of free iodine.

The idea was then conceived by one of us (Hughes) to synthesize an organic chemically stable iodine compound of low toxicity, from which nascent iodine or an active chemical radical could be liberated by roentgen-irradiation after its intravenous administration. The purpose was not to produce a compound whose secondary radiations would have therapeutic value or enhance the value of the irradiation itself. It was proposed rather to obtain a chemically stable pharmacologically inactive compound per se, which under the influence of external forces, such as roentgen-irradiation, might undergo alteration of its chemical structure such as liberation of nascent iodine or an active chemical radical. In this manner it might become possible to control by external forces localized therapeutic effects after parenteral

administration of therapeutically inert compounds.

Such a compound should fulfill the following requirements:

1. Low toxicity, permitting the intravenous administration of large amounts so that the concentration at any one particular point in the organism would permit the liberation of an adequate amount of nascent iodine.
2. High solubility.
3. High iodine content.
4. Stability of such a degree that irradiation within tolerable limits would induce the desired change.

Our study has consisted in investigation of 109 organic iodine compounds, many of which have been newly synthesized. The purpose of this preliminary report is to recommend one of these compounds for further investigation, since it seemed to fulfill the above requirements. Future reports will communicate additional information concerning the many and very complex problems of this therapeutic possibility.

*Editor's Note: The editor is indebted to Dr. Robert E. Cumming, urologist of Detroit, for this brief but valuable preliminary report of important research work of Dr. Hughes and Dr. Binz of Berlin, Germany. Dr. Binz was at one time an assistant of Dr. Erlich. Dr. Binz was present at the annual meeting of the American Medical Association in Detroit, where he discussed several papers in the section on Urology. Dr. Hughes has spent three and one-half years in Germany but is in the United States on furlough and plans shortly to return to Germany to resume his research work. This brief paper is an abstract of a preliminary report on the subject which was presented before a medical group in Detroit on December 16, 1932, by Dr. Hughes.

ROENTGEN DIAGNOSIS OF SMALL PLEURAL EFFUSIONS

In a new position for roentgen examination of pleural effusions, presented by LEO G. RIGLER, Minneapolis (*Journal A. M. A.*, Jan. 10, 1931), the patient lies on the affected side, the film being in front, the X-ray tube behind. Small effusions, which are entirely invisible in the usual positions, may be readily detected in this lateral decubitus position. Pleural thickening may be distinguished from a small pleural effusion by the use of this position. With change in position of the thorax, a free pleural effusion may extend into the interlobar fissures, giving the appearance of an encapsulated interlobar effusion. This phenomenon may also be used to differentiate fluid from pleural thickening.

TREATMENT OF CHOREA BY INDUCTION OF FEVER

Lucy Potter Sutton, New York, has treated twenty-four choreatic patients with intravenous injections of typhoid-paratyphoid vaccine as a means of producing fever. The results thus far have been good. There has been prompt cessation of the symptoms, and the course of the disease has seemed to be greatly shortened. In the cases reported the average duration after treatment was started was from eight to nine days. This treatment has been much more satisfactory than any other used at Bellvue Hospital on the Children's Medical Service. It appears to have definite advantages over phenyl-ethyl-hydantoin.—*Journal A. M. A.*

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

TULAREMIA

Tularemia is assuming more and more importance as a public health matter in the state of Michigan. In 1928 there were two cases reported, both of which were in employ of Detroit markets and contracted from rabbits shipped in from outside the state. In 1929 the disease was reported from Alpena, in a boy who had dressed a local rabbit which he killed while hunting. In 1930 a case was reported from the University Hospital at Ann Arbor in a young man who had handled a rabbit claimed to be domestic and obtained from outside the state. In 1931 there were seven cases reported from various sources and various localities in the state. Several of these were evidently from Michigan wild rabbits.

During the year 1932 there were reported seventeen cases from the following localities:

Coldwater	2
Crystal Falls	2
Detroit	2
Grand Rapids	1
Harbor Beach	1
Iron Mountain	2
Ironwood	1
Kingsford	1
Lansing	1
Ludington	1
Sault Ste. Marie.....	1
Three Rivers	2

Information as to the source was not found in every instance but there is good evidence that more than half the cases were due to Michigan wild rabbits. Data are still being collected on some of them.

Certain information is given here for the benefit of those who are not familiar with the disease. The causative organism is called bacterium *Tularensis* and was first isolated by Doctors McCoy and Chapin of the U. S. Public Health Service. This discovery was made by them in 1911 during a study of an epidemic in Tulare County, California, that had the appearance of the plague. The reservoir of infection appears to be rabbits and squirrels of certain varieties; Jack rabbits, cotton tail rabbits, snow shoe rabbits, ground squirrels and various other animals have been found to be infected with this organism. The mode of

transmission may be either by direct contact with the infected animal, in skinning or dressing, or by the bite of certain insects, deer flies or wood ticks. The organisms must enter the body through the skin or the mucous membrane. A visible cut or abrasion does not appear at all necessary. When the infection comes through the skin a characteristic ulcer is always formed at the site of the infection. The incubation period is relatively short, frequently of not more than a day or two. The onset is sudden, consisting of inflamed lymph channels draining the area of the ulcer. Lymph glands in the chain are inflamed and enlarged, sometimes to a great size, and frequently break down.

The disease is not highly fatal, most authorities reporting from three to five per cent case fatality. There is usually a long drawn out convalescence. Laboratory diagnosis may sometimes be made by culture of the blood during the first few days. A more common and easier method of laboratory recognition is the agglutination test, the agglutinins usually appearing about the end of the first week.

Not much in the way of treatment has been found to be satisfactory. Acriflavin, mercurochrome and other disinfectants of the blood stream have been used and reported as somewhat successful by a few physicians.

The most common clinical form is the ulcero-glandular which has been referred to above. Other clinical forms are the oculo-glandular, in which case the point of entry is through the conjunctiva, the glandular type where there is no gross ulcer at the point of entry, and the typhoid type.

The primary lesion in the ulcero-glandular type is a reddish papular ulcer. Often this ulcer appears on the fingers or hand. This is followed by a red streak up the arm and the gland involvement. There are general symptoms of infection of the blood stream by bacteria, such as chills, fever, sweats, aching in the back and legs and prostration. Once the attention of the clinician is directed by these symptoms to the possibility of tularemia, diagnosis can be made easily by taking a sample of blood similar

to that used for Wassermann test, and having an agglutination made in a competent laboratory.

C. D. B.

SEROLOGICAL CONFERENCE

The eleventh meeting of the Conference of Bacteriologists, Pathologists, etc., of Michigan, Ohio and Indiana was held at the Hotel Olds, Lansing, Friday, November 11, immediately following the Twelfth Annual Public Health Conference. This organization consists of medical scientists from the three states mentioned and meets about three times a year. Meetings are held in Detroit, Lansing, Indianapolis and Lafayette, Indiana.

The meeting, this time, was given over to a discussion of the serum diagnosis of syphilis and was based in part upon the results obtained with check sera sent out to 52 laboratories by the Michigan Department of

Dr. M. B. Kurtz of the Michigan Department of Health presented the results obtained with check serums. Dr. N. W. Larum of the same department discussed quantitative methods and Dr. John F. Norton of the Detroit Department of Health discussed the standardization of complement fixation reactions. Dr. R. S. Dixon of Detroit discussed serological reactions from the standpoint of the clinician and his paper was discussed by Dr. R. L. Kahn of Ann Arbor and Dr. H. E. Cope of Detroit.

At this meeting it was announced that results of serological tests would be reported as positive, negative or doubtful by the Michigan Department of Health after February 1. There was ample discussion of methods and their significance and a committee was appointed to consider plans and

methods for securing greater uniformity in serological tests in Michigan to unify aims and standardize procedures.

N. W. L.

CHILD HYGIENE

The series of child care classes taught by Julia Clock, R.N., in Huron County has been completed, and Miss Clock will conduct a breast feeding campaign in Clinton County, exclusive of St. Johns, before starting a series of child care classes in that county.

Dr. Ida Alexander is conducting a series of women's classes in Ionia County. These classes were begun on November 17 and to date there has been an attendance of 1,005 women. Dr. Edna Walck is conducting a similar series of classes in Kalamazoo County, begun November 29, at which there has been an attendance to date of 849 women.

The nutrition work which Bertha Wellington was just beginning in Ionia County was interrupted by an automobile accident in which Miss Wellington suffered rather serious head injuries.

Child care classes in Muskegon County are being taught by Deane Rinck, R.N., following a similar series of classes in Cheboygan County. The class work in Presque Isle and Alpena Counties carried on by Bertha Cooper has been finished and Miss Cooper has begun a series of classes in Saginaw County.

Department physicians who are Shick testing children in Lapeer County are being assisted by Esther Nash, R.N., and Annette Fox, R.N.

L. R. S.

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2642 University Avenue, St. Paul, Minnesota, and
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FEBRUARY, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

PERIODIC HEALTH EXAMINATIONS.

Probably there are few subjects of greater concern to the medical profession at the present time than that of periodic health examinations. A great deal has been written urging the importance of the procedure but the physician is often left up in the air in regard to what should constitute a physical examination. In other words how thorough and searching should the examination be? We are fortunate to be able to print in this number of the Journal papers by two leading internists of the state, name-

ly Dr. Charles G. Jennings and Dr. Hugo A. Freund, both of Detroit. These addresses are two lectures that were recently delivered before Wayne County physicians at the Herman Kiefer Hospital. Dr. Jennings' paper is largely introductory to the subject, emphasizing the fact that it takes a long time to put over a good idea. His paper is an interesting account of the history of the movement towards periodic physical examinations. In the City of Detroit Dr. Jennings held a position on the Board of Health in 1904. Referring to an effort on the part of the Detroit Board of Health to put in force a system of health inspection in the schools, we have quoted the reception the idea was accorded by one of the daily papers of the time: "It cost the taxpayers last year \$2,500 for this perfectly useless service, a service that would be ridiculous were it not an abominable and intolerable piece of impertinence." Detroit, as well as other municipalities, has travelled a long way in the last twenty-eight years, since it would be almost impossible for a sane newspaper to make such comment at the present day even over infinitely greater expenditures in the conservation of health.

Dr. Jennings raised the question as to what department of medicine the making of physical examinations belongs and answers his own question by stating emphatically that the field is essentially that of the family physician. There seems to be a wide agreement with Dr. Jennings on this score. We have specialization enough, no need of introducing a specialist on routine health examinations. Dr. Jennings goes on to say that there is nothing in a health examination that a physician competent to practice curative medicine is not qualified to give. "It differs," he says, "in some ways from the examination for established and recognized diseases. It is a search for the evidence of pathological tendencies and unsuspected incipient departures from the normal. It demands a complete medical life history and a painstaking physical examination." Dr. Jennings in his paper lists, under a number of headings, the items which the examiner should consider.

Following Dr. Jennings, Dr. Hugo Freund goes into detail in the matter of physical examinations even to the extent of showing how they should be done. About the only thing presumed is ability on the part of the examiner to perform such opera-

tions as oscultation, inspection, palpation, percussion and the necessary laboratory examinations.

"HOSPITAL AID PLAN"

The State Medical Society of Pennsylvania has been approached by the President of the Pennsylvania Hospital Association with a plan which proposes the payment of an estimated sum of \$15.00 a year per person on the part of the public, which sum will provide, without additional charge, hospital care in private rooms and all medical, surgical and obstetric care by members of the hospital staff. The patient, it is understood, will have the right to select his physician from the entire group of physicians entitled to practice in the particular hospital. A maximum fee is to be established by the staff and the hospital authorities so as to insure financial solvency. According to the plan, after the family physician of the beneficiary has decided the patient needs bed care, the hospital would have its staff man examine the patient in order to be doubly sure that such care were necessary. At the conclusion of hospitalization the patient would be returned to his family physician with a written report. "There of course would have to be some method of soliciting members to join the fund, but the management would not in any way induce patients to go to the hospital. . . . The plan will increase the income of physicians because it will make private cases out of many cases who now receive their professional care free. . . . Whatever plan is adopted of limiting the fees of physicians is an important one because unfortunately regulated charges might deplete the fund and also wreck it."*

The Board of Trustees of the Medical Society, sitting as the judicial council, took a position on the communication which may best be given in the letter authorized by them in reply to the President of the Pennsylvania Hospital Association:

"As per promise of my letter of September 30, in response to your request your communication regarding the 'Hospital Aid Plan' was presented in full to the members of the Board of Trustees at their meeting October 5, 1932. The plan was thoroughly discussed and a motion embodying the following was unanimously adopted:

*These sentences are quoted in an editorial in the December number of the Pennsylvania Medical Journal.

"The 'Hospital Aid Plan' as submitted by Mr. John M. Smith, President of the Pennsylvania Hospital Association, is considered unworthy of approval by the members of the Board of Trustees of the Medical Society of the State of Pennsylvania sitting as the Judicial Council, because the proposal is in conflict with the Principles of Medical Ethics governing the membership, as said Principles apply to contract practice—(1) in the solicitation of patients under any guise; (2) in the limitation of the free choice of physician, and (3) as being destructive of fundamental and essential relationship between the private medical practitioner and the patient."

Commenting on the "Hospital Aid Plan" the Pennsylvania Medical Journal contains the following:

"That the public will eventually suffer from any considerable adoption of plans which inject a third party seeking profit or as a socialized meddler between physician and patient is obvious to any one who will think the problem through. The adoption of such plans by reputable organizations and reputable physicians soon leads to imitation by infinitely less responsible parties. No one can say at this time when the unprecedented economic strain on hospitals and practicing physicians alike will be relieved, but we trust that when the history of this era is written the ethical standards and the ideals of the medical profession will be recorded as unchanged."

LIMITING THE NUMBER OF MEDICAL GRADUATES

There is a movement on foot, at least by way of recommendation, by some states to limit the number of graduates of medical colleges each year so that the supply will approximate the demand. It is said that new candidates licensed to practice medicine each year outnumber those removed by death or other causes by approximately one thousand persons. The situation is not so simple as it might at first appear. A number of factors are to be considered when it comes to limiting the number of candidates for the study of medicine. How is the limitation to be affected? The numbers are limited in some schools by advancing the cost of instruction in the way of inordinately high fees. This would presuppose that the student who had access to unlimited means would of necessity be the better candidate for medicine, which of course is not always the case. Often those who would make the best research men as well as the ablest practitioners of medicine are those who have very little means, to whom the doubling of fees would work a real hardship, if not preclude altogether their chances of entering the medical profession. If it were possible to devise some means of eliminating the un-

fit and making a judicious selection of those who from the point of inherent ability are fit, we would have an ideal situation. However, it is probably expecting too much of human judgment to hope even that such a judicious selection is possible of accomplishment.

One solution of the problem of over-production of physicians might consist in the elimination of the cultist as well as patent medicines. These items, particularly the latter, appear to bulk large in the matter of the cost of medical care. The cults, however, seem to have their day and cease to be, probably to give way to new ones. The possibility of eliminating the cultist is rather questionable, that is it is more easily suggested than accomplished. Probably after all in the practice of medicine as in everything else the fittest will survive if not hampered by artificial barriers.

TECHNOCRACY*

The word is not in the dictionary. A free translation would be "domination by the machine." As machines are invented or perfected, the nearer we approach the elimination of man power. A self constituted group of engineers (some of the leading names in the world) began ten years ago a study of the possible ultimate effect upon the race of the introduction of labor saving machinery. The active committee of thirty-six engineers has worked steadily for the past year and a half on what has been called, The Energy Survey of North America. The committee has its quarters at Columbia University. It has representatives in almost every important center in the civilized world. The findings and opinions are of unusual interest, emanating from a body of men of such a high degree of technical training. The na-

*Most of the data for this short paper have been obtained from a series of articles by Wayne W. Parrish in the *New Outlook* for November and December, 1932.

This editorial was written about eight weeks ago. We have given the meaning of the term from the etymology. Interest in the subject has become nation-wide and the term is now used to designate the group of engineers who have undertaken the study. There have been numerous articles and interviews criticizing the idea, but only one attempt (New York Times, January 8th) have we read that checks over the statements, particularly the statistics of the engineer group. Even allowing for some exaggeration of statement, the idea is still worthy the attention and study of serious minded persons. As it stands this editorial is not concerned with any of the proposed solutions of the problem. The price system, so-called, is so old, going back to primitive society, that we have no conception of any other means of satisfying human wants. It is difficult to write articles for lay magazines, on any subject, that are free from the emotional element and the articles on technocracy are no exception to the rule.

ture and scope of the research is purely a technological analysis of the forces which affect our social structure. Profits, wages and prices do not enter into the research, which has mainly to do with quantitative determination of physical production and the energy consumption involved in that physical production. The dominance of the machine in industry is due in a large degree to the work of such minds.

Mankind of recent years has worshipped the god efficiency. We are beginning to see our error. A century ago, we are told, one man could produce 25 tons of pig iron each year and one could produce 800 tons of iron ore. In 1929, 20,000 tons of ore was produced per man per year. A photograph of a modern steel mill in full operation, shows, we are told, no human being in view. According to Wayne W. Parrish: "The increase in power has been so tremendous within the past twenty-five years that it is difficult to grasp its full significance as applied to the social structure. For 7,000 years of social history there was no change in the rate of doing work. The human being was the best engine society had.

"Prior to the first quarter of the nineteenth century—just a little over a century ago—our engines of conversion, which were human beings, were the same as those of the Pharaohs. The human machine averaged under 200 pounds in weight and was capable of an output of one-tenth horsepower unit per eight-hour day. Now look what happened. The steam engine was introduced, electric power came into being, and within one hundred years we have multiplied the original output rate of the first, or human, engine by 9,000,000, as expressed in a modern energy transversion unit! But most significant of all is the astounding fact that most of this advance, or 8,766,000 of the 9,000,000 increase, has come within the last thirty years."

* * *

We quote the following paragraphs* which go to show—

... that machinery developed in the single decade between 1914 and 1925 enabled one man employed in industry in 1925 to take the place of three men employed in industry in 1914.

... that if the S. S. Europa obtained her motive power the way the Spartan admiral Eurybiades obtained his at the battle of Salamis she would have to carry sweep-pullers to the number of 3,000,000 men—or about the total male population of Wash-

**Fortune*, December, 1932.

ington, Kansas, and Minnesota put together—instead of the engine crew of 180 she now employs.

... that whereas Mr. P. J. McCarthy, the famous strong man of the '90's, supported 6,370 pounds of stone to the amazement of the world, no one would so much as turn his head today to see a dinky hoisting engine lift 6,370 pounds of stone sixty feet a minute.

... that six or eight men can today control and operate a turbine capable of producing as much energy in twenty-four hours as 9,000,000 men working on eight-hour shifts.

... that if 10,000 men had set out to dig the Panama Canal the year the Pilgrims landed, they would not yet have finished the digging of the earth and rock.

... that the production of a motor car required in 1929 less than one-third as many man hours as in 1919 and less than one-twelfth as many as in 1904.

... that one man operating a modern brick-making machine sends 710 brick makers into other jobs or out to the bread line ... that one man operating a modern glass-tube-making machine deprives 600 skilled hand workmen of their places ... that one man operating a new electric-light-bulb machine replaces 10,000 human electric-light-bulb makers ... that one man in 1930 could make as many needles in a day as 17,000 men in 1830 ... that a modern Minneapolis flour mill under the control of one man turns out as much flour in a day as 8,000 of Themistocles' millers ... that modern shoe machinery installed in the shoe industry of Revolutionary days would have driven thirty-nine out of forty shoe makers out of the industry.

... that although Caecilius, a freeman under Augustus, was famous among slave-owners of antiquity for his stable of 4,116 head, an equivalent total horsepower (411.6) is owned during the course of his life by almost any small car owner of the present day who trades in his old Ford every two or three years for a new one.

... that if the 1929 U. S. wheat crop had been grown in 1829, 6,000,000 men using the best 1829 equipment would have been required to prepare the ground for it and sow it ... whereas 4,000 men using the best 1929 equipment could have done the whole job.

... that in one decade (1920-1930) one manufacturer (General Electric) created new machinery capable of producing four times as much man power (160,000,000) as the total wage-earning population of the U. S.

The fact that machines have succeeded in producing superior goods and better service than ever possible from the hands of man or woman, precludes the return of the human element to industry in a degree to affect in any material way the unemployment situation. As an example the introduction of the dial telephone has not only meant the elimination of workers but it has also meant a perfect service to the telephone user.

The articles* referred to mention inventions just in the offing that will further precipitate unemployment to greater depths. Take the simple matter of the safety razor blade. "The technologist can easily produce a blade with a tungsten carbide edge on a

steel wafer base at just 20 per cent additional cost of the blade today. But the blade would last a lifetime or longer. The razor blade industry could quickly supply the nation with these lifetime blades, but the plants would have to shut down almost immediately. After a few weeks the demand for blades would be almost non-existent. The plants are open today only by marketing a product that needs constant replacing." Other improvements mentioned affect the paper (news print) industry, the automobile, the clothing industry all in the direction of greater durability and permanency, which in turn eliminate the human element from industry.

* * *

It has been repeated many times that depressions have a way of pursuing a cyclic course with good times, therefore from a long perspective of history we might assume that the present depression will sooner or later (sooner everyone hopes) come to an end. There have been definite causes in the past for the historic depressions and definite causes for the emergence therefrom. The present economic and social condition in which the world finds itself is, however, in one respect unique. The tendency, accelerated since the war, has been to depose man power by the invention of so-called labor-saving machinery. This has given us a new *involuntary* leisure class. The dominance of the machine in industry has resulted in the supply of world commodities out of all proportion to the capacity of the world to purchase them. So that at last we have learned that machines are in many instances superior to man in producing objects and also profits. But the time has come when, in accordance with the law of diminishing returns, it has almost ceased to produce profits for reasons apparent to everyone. The machine in turn becomes a liability to its owner. It is a poor prospective buyer for the commodities it produces.

If the depression is to lift, what will be the factors that will bring about good times? There is little use in hoping blindly that something somehow may turn up. It is our belief that the same kind of expert guidance is needed, of a quality equal in every respect to the engineering genius which produced the machine age. Through engineering skill in its broadest sense man has acquired a mastery over nature. Man has learned to

*Loc cit.

control the forces of nature, but when it comes to industrial statesmanship we are sadly behind. It is not long since the forces which have meant so much for the satisfaction of human desires were within man's power. At present it would seem that they have gotten beyond his control. He is in the position of the boy playing with matches. He has started a conflagration that has got beyond him, or he has taken chances in his boat above the rapids not realizing the speed of the current that is wafting him to his destruction.

Man has been defined as a tool-using animal. He has become, however, the servant of the tool, which in turn has thrown him into the discard when it has become automatic.

* * *

Wise political guidance would undoubtedly tend to mitigate the situation in which the world, and particularly our own country, finds itself. It is a stock argument of the protectionist that the lowering of the tariff would expose American labor to competition with cheap European labor. It is not so much a matter of European labor competing with American labor as European labor competing with the American machine. And here the odds are against foreign labor. Tariffs reciprocally lowered would tend to afford us an outlet for our overproduction but the result would not make for an ideal solution of our unemployment problem if the data presented are true.

The conservative *Saturday Evening Post* is hopeful. "America has been wearing out," comments the Post, editorially. "It needs everything, from a new automobile to a new pair of shoes. First, replacements must be made all down the line; then more help will be wanted; then mounting wages, higher price levels and a sane prosperity will follow." But why is America wearing out? The answer is simple. Non-employment, the result of highly mechanized industry, has deprived American workers of the means for repair and replacement and as time goes on purchasing power becomes less and less.

As physicians we have occasion to believe that the available supply of money in possession of many persons has all but vanished. It is evident that a condition of impecuniosity exists among patients all over the United States. How is any sudden demand to start the factories? The demand is already here and has been for many months.

We are reminded of the man who said there were five reasons why he did not fire his gun and went on to enumerate them. In the first place he had no ammunition. "Never mind the other reasons," replied his companion. So far as the causes of the depression are concerned, when we mention the great fact of the displacement of men by the automatic or near automatic machine the numerous other factors seem comparatively insignificant.

The fact that the articles mentioned appear to have attracted the attention of a number of our members has prompted this editorial. The best way to meet a situation is to try to understand its nature and magnitude and then act in accordance with our best judgment. It does little good to hope blindly for prosperity just around the corner. Many adjustments and perhaps modification of our course in life will be necessary to meet conditions which we are unable to change.

A PLEA FOR PROFESSIONAL UNITY

Elsewhere in this number of the JOURNAL appears an address by Dr. Burton R. Corbus, Chairman of the Council of the Michigan State Medical Society, delivered before the Kent County Medical Society. He speaks of the increasing economic pressure under which medicine is laboring, and of the numerous plans proposed for the relief of the alleged difficulties of both patient and physician. In some of these proposed measures he discerns socialistic tendencies in spite of the inadequacies of similar plans as applied in some European countries. As to the necessity of making a high quality of medical work generally available, all are agreed. The profession of this state has not lagged behind in the matter of post graduate education sponsored by the University, and in public health education through the public forum and more recently by radio. Post graduate instruction has been brought virtually to the door of the doctor and health education to the door of the citizen.

Dr. Corbus referred to the efforts of the Michigan State Medical Society to study medico-social problems as seen in the study of the hospital situation a few years ago, and in the present very thorough study being made by the special committee on survey

of health agencies. He noted also the exhaustive study by the public relations committee of Kent County. The speaker refers to what he considers improper emphasis on the cost of medical care which is too often interpreted as physicians' fees instead of support of adequate medical service of high quality. Hardly a third of the total cost of care of illness goes to the physician. The average income of the doctor even when times were good was low, as many of the older men in the profession know, due to the success of preventive medicine in all but eliminating many infectious diseases; so now medicine is largely concerned with diseases of adults and of old age.

In periods of unemployment employes and workers alike look to the doctor to carry the burden of sickness and to the state to carry the burden of feeding and housing. We must, Dr. Corbus contends, guard ourselves against plans hurriedly conceived, many of which tend towards commercialism and the violation of the ethics of the profession which has had such an important survival value. The profession is apprehensive of any attempt to interfere with the personal relations of physician and patient which will ultimately prove of disadvantage to the patient.

In conclusion he pleads for unity in the profession and a recognition of leadership based on a thorough study of the situation. We believe that various factors, among them the study of the subject of medical care by the five year committee, have done a great deal towards promoting a united front that has seldom been the attitude of the profession. It has been proven that the doctor is a very important personage in any community. He will be wise if he accepts this evaluation of himself and will study the situation in which he finds himself with that absence of emotion that he would apply in investigating the symptom-complex of a patient.

AFTER THE TUMULT AND THE SHOUTING DIES

Two months have elapsed since the appearance of the final report of the Committee on the Cost of Medical Care. The kind of reception it has been accorded has depended upon the attitude laymen and professional men alike have held regarding the principle of socialization. Those of us

whose youth was molded in the late Victorian years were nourished on the doctrine of *laissez faire*. We have learned to be content with our lot, be it small or great, so long as it is limited by our ability only. It is not in our stars but in ourselves that we are underlings. We had come to feel that the government is best that governs least. Hence socialization schemes have never got very far with those whose feet stood upon the exit of the nineteenth or upon the threshold of the twentieth century.

A large sum of money, however, has been spent and a great amount of work in the nature of fact-finding has been accomplished. The data collected by the committee are valuable and should be utilized by both the medical and lay press when occasion offers, whatever may be our reaction towards the committee's conclusions.

Then again we sometimes wonder if "our stars" haven't more to do about the position in which the world is placed, than we. The world is being dominated by a determinism which it seems impossible to direct, let alone to control. If the domination of the machine is to continue to eliminate man from industry and thereby to increase the number of dependents, what is to be done? The unemployed must be fed. The great body of indigent sick and underprivileged must be cared for. If the medical profession are to perform their ever-increasing burden they must be in a position to meet the strain, which cannot be done on empty pocketbooks. As much as we doubt the wisdom of socialization we have no real panacea to offer, except that the medical profession continue to meet the exigency as they have in the past with as enlightened and capable leadership as possible.

It is natural that socialization should begin with medicine. The demand for medical care is next in importance to food in the struggle for existence, and it is universal. The so-called *dole* is socialization applied to such necessities as food and shelter.

Regarding the item of cost of medical care, "The Committee recommends that the costs of medical care be placed on a group payment basis, through the use of insurance, through the use of taxation, or through the use of both these methods. This is not meant to preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method. Cash benefits, *i.e.*, compensation of wage-

loss due to illness, if and when provided, should be separate and distinct from medical services."

With millions of unemployed, almost any insurance plan that involves the payment of premiums or dues of any kind, is out of the question; so the matter of cost of medical care falls back on taxation, and this is state medicine replacing the private practice of medicine. The clause, it will be noted, does not "preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method," which means that having paid not only for his own medical care through taxation, and that of many indigents besides, the property owner may call in the service of a private physician and pay him individually when medical services are required for himself or his family.

A SUGGESTION FOR MEDICAL CARE OF THE INDIGENT

Dr. James A. MacMillan of Detroit comes forward with a suggestion that appears to us worthy of the serious consideration of county medical societies and civic officials. Instead of the congested clinic that prevails today in the majority of our large cities, Dr. MacMillan would have the same—or better—system of investigating the needs of the so-called indigent patient, and have him referred to physicians in private practice to be cared for in their offices or in the patient's home according to his needs. The clinic physician as is commonly understood gives his time to some clinic organized as a hospital out-patient department. Why could he not as well take care of the patients in his private office? The city might be "zoned" or divided conveniently so as to render visits over as short a distance as possible both on the part of the patient to the doctor or the doctor to the bed-ridden patient. Doctors could then get the clinical experience which appears to be one object of attendance on out-patient departments of hospitals. An efficient social service could see that in some cases physicians might be reimbursed by relatives or others interested in the condition of indigent patients. According to Dr. MacMillan's suggestion the expense of laboratory tests and medicines might be borne as now by the city but made by private clinical and X-ray laboratories at a nominal cost.

This plan would be an advantage to the indigent patient in as much as he would be under a personal physician and the physician would have the advantage in the way of working up a practice that might eventually become remunerative in as much as indigent persons are not always indigent; for after all, in spite of the altruism of the profession, doctors are dealing, so far as their personal necessities are concerned, with a public that shows very little altruism to them.

THE DEADLY DOLE

"Human experience fully supports the report based on investigations by the Department of Psychology of the University of Vienna and the Austrian Economic Psychology Society, that prolonged unemployment brings on intellectual apathy and lack of interest in life—where the unemployed are relieved from immediate anxiety by the dole. Nevertheless the report is full of immediate interest.

"The investigators, using an Austrian town as a laboratory, found that its people though given no more than enough to support existence seemed to have lost all initiative and energy. There were books in the town library but the circulation had fallen off 45 per cent. The kindergarten was free, but empty. Even the elections were neglected. The people seemed to have lapsed into the condition of half comatose indifference often found among caged animals and birds.

"It is likely that this picture is an extreme one. Certainly there are communities and individuals in other countries under dole, that do not sink into so sad a condition of inertia. But the differences are differences of degree; and we find the same sort of thing in our own City among many of those on the Welfare or housed in places like the Fisher Lodge. Cared for in their extremity, all but those with the strongest characters grow lazy and pauperized, and frequently resentful of anything that threatens their aimless existence."

So comments The Detroit Free Press editorially on the principle of giving something for nothing. The experience of the Austrian town places the matter of the dole in the category of medical subjects—at least that department of medicine which is included under psychiatry. The remedy is not an impossible one. There is always plenty of work to do. The objects of municipal charity should be prevailed upon to perform some service either for the city or for the individual taxpayer, who through taxation, often to the breaking point, makes it possible for the recipient of the dole to live. The larger industrial cities of the state during prosperous times have attracted a class of worker with no special training. Within a few hours he has learned to motivate the near-automatic machine of which

he virtually became a part. The days of craftsmanship when workmen wrought with miser care, have passed into history. We have in the place of the skilled intelligent worker a large number of persons with no special training, all of which goes to aggravate the unemployment problem. These, however, might at least earn their sustenance under competent leadership. We suggest work as a therapeutic measure.

OPTIMISTS

(The Medical Journal and Record)

"Scientists in the last few years have been telling us how healthy we are. This is especially true of the scientists who are paid by the government and who do their figuring on a comfortably filled belly. We believe that one of the outstanding gentlemen who has been making using of these so-called statistics is called Dr. Wilbur. We do not like to dispute his word in any way, especially when he has done his best to tell us that the depression is very healthy for us. But we are certain that he has not put himself on a diet that many of the victims of the depression had to put up with, nor has he been without food or shelter. He just studied figures. He did not look into the broken years or the crushed hopes. He did not take into consideration psychological health. He did not take into consideration a gradual breaking down of resistance. He did not take into consideration undernourishment of children who survived, but who became a prey to epidemic and diseased conditions. We are of the opinion that the next few years will show a terrible aftermath as the result of our present situation—economic, social and psychological. We are wondering if our friends are as optimistic now that the election is over and the question is becoming a scientific one rather than a political one."

OBITUARY

DR. JOHN C. BRANCH

Dr. John C. Branch died at his home in White Cloud, Newaygo County, Michigan, December 26, 1932, after an illness of six months.

Dr. Branch was born in Watervliet, Berrien County, Michigan, June 3, 1852, eighty years ago. He graduated from the Kentucky School of Medicine, later the Louisville University in 1895; then practised medicine in Wayland, Michigan, for four years.

He then moved to White Cloud, where he had been in active practice until about six months previous to his death.

He was an active member of the Newaygo County Medical Society, the Michigan State Medical Society and the American Medical Association.

DR. W. K. LIM

Dr. W. K. Lim, for more than twelve years associated with Dr. Alexander Blaine at the Jefferson Clinic, Detroit, died on December 30, 1932, at the Jefferson Clinic and Diagnostic Hospital after a week's illness of pneumonia. He was born on the Island of Sumatra thirty-nine years ago. Dr. Lim received his Bachelor of Arts degree at Ohio University, where he was elected a Phi Beta Kappa

student. He came to Detroit and enrolled in the Detroit College of Medicine and Surgery and graduated in 1921. Dr. Lim's specialty was X-ray. His was a research type of mind. He loved his work and devoted almost all his time to it. He was a member of the Detroit Roentgen Ray and Radium Society, the Radiological Society of North America, the Wayne County Medical Society, the Michigan State Medical Society and American Medical Association. Dr. Lim won the respect and good will of everyone whose good fortune it was to know him. He is survived by his widow Katie Moy Lim, one son, Bien Tek, four years old, and a daughter, Chia Ming, fourteen months. Dr. Lim married a daughter of a Chinese physician in Washington in 1927.

DR. RANSOM MOSS

Dr. Ransom Moss of Pontiac died on December 29, 1932, at the age of 78. He had practised in Pontiac for the past twenty-five years. Following his graduation from the Medical School of the University of Buffalo in 1889, he practised in Gowanda, New York, for thirteen years. He then moved to Port Huron, where he practised until 1909. He is survived by his widow and two daughters. Dr. Moss was a member of the Oakland County Medical Society, The Michigan State Medical Society and American Medical Association.

INDISPENSABLE USES OF NARCOTICS

Horatio C. Woods, Jr., Philadelphia, prefaces his enumeration of the therapeutic uses of narcotic drugs with the statement that there are certain facts concerning opium or cocaine and their derivatives that should be borne in mind. First, they are valuable therapeutic agents; to banish them from the materia medica is to work an unjustifiable hardship on suffering humanity. Second, the habitual use of them is a real menace to the welfare of society, which should be combated with every weapon available. Third, the injudicious use of these substances as remedial agents has in many instances resulted in the formation of a habit. With a knowledge of these facts the conscientious physician will not hesitate to use them when necessity demands but, on the other hand, will try to avoid their employment whenever possible by the application of less dangerous measures.—*Journal A. M. A.*

MEDICAL HISTORY ON THE RADIO

On January 8, the House of E. R. Squibb and Sons presented the first of a series of half hour radio programs in keeping with the splendid traditions of its founder.

This half hour of entertainment is on the air every Sunday over the Red Network of the National Broadcasting Company Chain, at 4:30 P. M. New York time. It features Frank Black and his Orchestra, the Revelers, and as the high spot a dramatization of gripping moments from the history of medicine.

These presentations of music and interesting dramatic episodes are designed to appeal to almost every type of radio listener. The announcements emphasize that only through a sufficient number of properly trained physicians can a community expect to meet its responsibility for the care and prevention of illness and the protection of health. Impressive reasons are also mentioned as to why the use of the family doctor is a good way to keep down the costs of competent, sympathetic and understanding general medical care.

Minutes of the Mid-Winter Session of the Council of the Michigan State Medical Society

1. Pursuant to the official call, the Council of the Michigan State Medical Society convened in the Statler Hotel, Detroit, at 9:30 A. M., January 12, 1933, with Chairman Corbus presiding and the following Councillors present:

B. R. Corbus, Henry Cook, J. E. McIntyre, P. R. Urmston, J. D. Bruce, Henry Carstens, Richard Burke, A. S. Brunk, C. A. Neafie.

Absent by reason of illness:

Harlen MacMullen, T. P. Treynor, T. F. Heavenrich, George C. Hafford.

Present also:

President Robb, President-Elect George L. LeFevre, Treasurer Wm. A. Hyland, Editor J. H. Dempster, Chairman of the Medico-Legal Committee Wm. J. Stapleton, Jr., Chairman of the Committee on Health Survey Wm. H. Marshall, F. C. Warnshuis, Secretary.

There were also present at various times during the session Ex-President Angus McLean, Herbert E. Randall, and L. J. Hirschman.

2. Upon motion of Councillors McIntyre-Powers, the Minutes of the Executive Committee as published in the Journal were adopted and made part of the official records of the Council.

3. Dr. Wm. H. Marshall and Nathan Sinai of the committee on the Survey of Medical and Health Agencies presented a valuable report of the progress and activities of the committee. By reason of slowness of returns on certain questionnaires, and additional investigation activities, the committee reported that they would be unable to complete their labors and formulate a complete report until some time between March 5 and 15, 1933. And, therefore, they would not be able to present a report to the House of Delegates until some time between March 15 and 31, 1933. The committee reported, however, that beginning the latter part of February they would begin to distribute to members of the House of Delegates informative summarizations of the various phases of the survey in order that Delegates might have an intelligent view-

point of the work that was being accomplished and the report that is to be rendered and would thus be able to record mature judgment in their deliberations during the session of the House of Delegates. The following motion was made by Councilors Powers-Bruce:

The Council requests the Committee on Survey of Medical and Health Agencies to present criticisms and recommendations related to the various plans that have been presented as solutions of the social and economic problems of medicine, and that these include the questions involved in post-graduate work, scientific advancement of doctors, the discussion and appraisal of other studies and to set forth certain plans and policies that may be offered as the result of all the committee's findings.

4. The Secretary submitted the following as his Annual Report, which was referred to the Committee on County Societies, the Committee on Finance, and the Committee on Publication.

SECRETARY'S ANNUAL REPORT

To the Council,
Michigan State Medical Society.
Gentlemen:

I have the honor and appreciated privilege of transmitting to you, and through your body to the membership, your Secretary's Annual Report for 1932.

FINANCIAL

Appended hereto is our Auditor's financial report disclosing the Society's financial status. Appended also is an itemization of all receipts and expenditures.

FINANCIAL COMMENT

When consideration is given to the facts that the Council directed that a rebate in annual dues be given to each member in the total amount of \$8,132.87; when it is remembered that by action of the House of Delegates the Council financed the cost of the work of the Committee on Survey of Medical Services and Health Agencies in the sum of almost \$5,000; when it is recalled that there was a lessened income from exhibitors and advertisers and an increased cost of Annual Meeting, American Medical Association Delegates and Committee expense—when due heed is given to these factors then it must be concluded that our financial program was sound. The extraordinary demands for medico-legal service and protection made heavy demands upon the funds of that protecting membership benefit.

Our advertising income was \$6,234.94, a loss of \$2,614.29.

Our dues income was \$5,936.88 less by reason of the rebate granted.

Our Investment Reserve depreciation is 50 per

cent since 1930 but eventually will be but about 20 per cent.

Our Annual Meeting cost \$2,019.08.

It can be justifiably affirmed that we have had a satisfactory financial experience.

A financial program and Budget for 1933 has been formulated after careful thought and computation and transmitted to your Committee on Finance. The Chairman of that Committee will present it with recommendations for your consideration at this session.

Dr. Wm. A. Hyland, your Treasurer, has qualified for the office and the Society holds a security bond for the funds in his keeping.

Your Secretary has sought to be most diligent in supervising disbursements and also in embracing every opportunity of producing increased revenue.

DEFERRED PAYMENT OF DUES

Unless otherwise instructed, members' notes will be accepted for 1933 dues when approved by the County officers.

THE JOURNAL

The financial affairs of the Journal are in sound condition. Appreciation and credit must be recorded

to the Bruce Publishing Company for voluntary reduction of printing cost on two occasions during the year that were productive of financial savings. This Company has been most obliging, cooperative and courteous in all business transactions. The Society is most fortunate in having established business connections with this firm that is so high in rating and character. I commend them in highest terms to other state organizations.

Business retrenchments on the part of firms has occasioned a \$2,614.29 reduction in advertising income. Your Secretary has pursued every source for increased income. Experience and present information warrant stating that an increased income may be expected in 1933. Increased income is dependent upon patronage of advertisers. It must be urged that this be constantly stressed to our members on every occasion.

No charge has been made against the Journal account for Secretary's time, office, bookkeeping, advertising or clerical salaries.

SOCIETY MEMBERSHIP

On January 1, 1932, our membership was 3,235. On January 1, 1933, our membership is 3,261, a gain of 26 with 32 deaths, a net gain of 58 affiliated as follows:

MEMBERSHIP TABULATION

County	1931	1932	Loss	Gain	Unpaid	Deaths
Alpena.....	14	15	--	1	--	1
Antrim-Charlevoix-Emmet-Cheboygan.....	23	30	--	7	1	--
Barry.....	12	12	--	--	1	1
Bay-Arenac-Iosco.....	63	62	1	--	3	2
Berrien.....	42	41	1	--	5	1
Branch.....	12	13	--	1	1	--
Calhoun.....	112	113	--	1	--	1
Cass.....	11	12	--	1	1	--
Chippewa-Mackinac.....	15	17	--	2	--	--
Clinton.....	13	12	1	--	2	--
Delta.....	21	23	--	2	--	--
Dickinson-Iron.....	18	19	--	1	3	--
Eaton.....	16	21	--	5	--	--
Genesee.....	139	131	8	--	14	1
Gogebic.....	25	26	--	1	1	1
Grand Traverse-Leelanau.....	25	28	--	3	--	--
Gratiot-Isabella-Clare.....	26	28	--	2	1	--
Hillsdale.....	22	20	2	--	1	--
Houghton-Baraga-Keweenaw.....	42	40	2	--	2	--
Huron.....	9	9	--	--	1	--
Ingham.....	94	83	11	--	9	--
Ionia-Montcalm.....	36	33	3	--	3	--
Jackson.....	76	69	7	--	8	--
Kalamazoo.....	120	122	--	2	2	3
Kent.....	200	232	--	32	6	2
Lapeer.....	24	18	6	--	3	2
Lenawee.....	33	35	--	2	1	1
Livingston.....	10	12	--	2	1	--
Luce.....	9	10	--	1	--	--
Macomb.....	34	32	2	--	4	--
Manistee.....	14	13	1	--	1	1
Marquette-Alger.....	33	36	--	3	1	--
Mason.....	10	8	2	--	4	--
Mecosta-Osceola.....	20	19	1	--	--	--
Menominee.....	12	10	2	--	--	1
Midland.....	9	8	1	--	2	--
Monroe.....	33	31	2	--	5	1
Muskegon.....	68	67	1	--	1	2
Newaygo.....	10	9	1	--	--	--
Oakland.....	93	95	--	2	12	4
Oceana.....	7	8	--	1	--	--
Otsego-Montmorency-Crawford-Oscoda- Roscommon-Ogemaw.....	11	11	--	--	1	--
Ontonagon.....	6	5	1	--	1	--
Ottawa.....	28	28	--	--	1	--
Saginaw.....	70	75	--	5	5	--

County	1931	1932	Loss	Gain	Unpaid	Deaths
Sanilac.....	6	10	--	4	--	--
Schoolcraft.....	4	5	--	1	--	--
Shiawassee.....	30	27	3	--	2	1
St. Clair.....	46	44	2	--	4	2
St. Joseph.....	15	17	--	2	--	--
Tri-Wexford-Kalkaska-Missaukee.....	20	23	--	3	--	1
Tuscola.....	26	23	3	--	4	1
Washtenaw.....	119	124	--	5	8	1
Wayne.....	1,249	1,279	--	30	108	18
	3,235	3,293	64	122	234	49
		3,235		64		
Gain for 1932.....		58		58		
Deaths		49				
Total gain 1932.....		107				

DEATHS

The following deaths for 1932 are recorded:

Alpena County

Wood, Richard R.

Barry County

Griswold, R. W.

Bay County

Baird, Thomas A.
Stewart, C. A.

Berrien County

Curtis, Orville R.

Calhoun County

Stone, Ray C.

Genesee County

Chapel, C. D.

Gogebic County

Madajesky, E. M.

Kalamazoo County

Gifford, A. H.
Ostrander, Herman
Upjohn, Wm. E.

Kent County

Barth, Louis
Hooker, Charles E.

Lapeer County

Blake, Wm.
Wisner, Calvin A.

Lenawee County

Eccles, R. M.

Manistee County

Robinson, Humphrey D.

Menominee County

Vennema, Henry A.

Monroe County

Knapp, L. C.

Muskegon County

Cramer, J. T.
Eames, Lucy N.

Oakland County

Brannock, Albert L.
Hamlin, G. F.
Losee, James W.
Miller, James A.

Shiawassee County

Parker, Jesse O.

St. Clair County

Brush, B. E.
Platt, J. S.

Tri-County

Wardell, Joshua

Tuscola County

Young, S. B.

Washtenaw County

Canfield, R. Bishop

Wayne County

Applebee, Wm.
Bastendorf, Wm. P.
Bauguess, H.
Bundy, George
Coram, Edward J.
Harrison, J. W.
Hoskins, Neal L.
Hubbard, Edwin E.
James, H. H., Jr.
Lavelly, Newell E.
Maunder, J. E.
Mead, James E.
Ridenour, George W.
Rivkin, Michael A.
Rosenthal, Jacob
Sherman, George H.
Truesdell, Clarence E.
Wendt, Leonard F. C.

Tribute was paid to these departed members at our Annual Meeting.

MEMBERSHIP BENEFITS

Medical organization has been and will be the powerful factor in protecting and maintaining the practice and influence of the individual physician. Individual effort, to stem the tide of exploitation of the doctor and his science, is unavailing and doomed to destructive defeat. All of our traditions, all of our scientific accomplishments and all of our future hopes can only be conserved and enhanced by a closed union of our interests. From time to time in Journal comments, communications and talks before our County units this basic fundamental has been stressed. By diagrams and by placing emphasis upon what our Society is accomplishing through its officers, Council and Committees the benefits of membership have been demonstrated. Further comment at this time is unnecessary for during the coming year benefits of affiliation will be continuously pointed out to the profession.

POST GRADUATE CONFERENCES

In coöperative effort with the Department of Post Graduate Medicine of the University and the Chil-

dren's Fund, the following post graduate activities have been conducted.

April 6, 1932—Ninth Councilor District—Manistee, Mich.

April 19, 1932—Seventh Councilor District—Port Huron, Mich.

May 19, 1932—Twelfth Councilor District—Iron Mountain, Mich.

May 25, 1932—Eleventh Councilor District—Big Rapids, Mich.

June 6-18, 1932—Post Graduate Courses—Detroit Receiving Hospital.

October 11, 1932—Post Graduate-Pediatric Conference—Marquette, Mich.

November 10, 1932—Ninth Councilor District—Cadillac, Mich.

November 30, 1932—Sixth Councilor District—Owosso, Mich.

The excellent report of the Commission on Medical Education contains this vital fact: "Emphasis must be kept constantly upon the fact that only through a sufficient number of properly trained physicians can a community expect to meet its responsibility for the care and prevention of illness and the protection of health."—"Medicine will occupy its proper place in society to the extent that it provides leadership and properly trained personnel for the program of medical service, which should be built upon thoughtfully conceived plans of medical and post graduate education, proper organization of the profession, and the advocacy of unselfish and courageous public and professional policies."

Our Society some fifteen years ago perceived that principle and has been a pioneer in fostering such activities and acquitting itself of that responsibility. In fact we blazed a trail. First by Clinic teams, then by regional Clinics followed by Councilor District and County Clinics and Conferences, and then by creating through the Department of Post Graduate Medicine of our University the intensive post graduate work of two and four weeks duration. Each year in Ann Arbor and Detroit exceptional post graduate opportunities have been made available at the very door of our members. These opportunities are being enlarged each year and during the next five months the Post Graduate Department of Medicine of the University will conduct an enlarged program of post graduate work in Ann Arbor and Detroit that will afford to our members opportunity for study not obtainable elsewhere.

County Officers and Councilors may well direct attention to these courses and impress upon members that in creating these opportunities the Post Graduate Department of the University and our Society has provided for their benefit and personal profit post graduate work that merits appreciation and should be embraced and recognized as a commendable contribution for their individual welfare. Michigan will continue to lead in this service to its members, to the public and to the solution of providing adequate medical care for all communities.

COMMITTEE WORK

In furthering Society accomplishment, special undertakings have been assigned to well chosen Committees created as follows:

- (a) Joint Committee on Public Health Education.
- (b) Radio Committee.
- (c) Survey of Medical Services and Health Agencies.
- (d) Civic and Industrial Relations.
- (e) Study of Birth Control.
- (f) Preventive Medicine.
- (g) Cancer.
- (h) Scientific Program.
- (i) Legislation.
- (j) Medico-Legal.

Each of these Committees is engaged in specific achievements. Their work and progress is reported from time to time and summarized annually in reports to the House of Delegates. The Council has been most liberal in providing funds for their work. During 1932 \$7,674.86 was expended for Committee activity. Every credit should be accorded for the time and effort contributed by these Committeemen.

WOMAN'S AUXILIARY

The House of Delegates and the Council has sponsored and inspired auxiliary activity. One month ago, following a conference with President Robb and Chairman Corbus, your Secretary outlined a program of work for the Auxiliaries. It is hoped that the opportunities outlined will be embraced. County Societies as yet without Auxiliaries are urged to organize a local Auxiliary.

ANNUAL MEETING

The expressions received following our last Annual Meeting warrant continuation of that type of program. Our experience the past several years warrants consideration as to whether our Annual Meeting places be confined to Detroit, Grand Rapids and Flint with an occasional meeting in a resort area.

ADMINISTRATIVE

The past year has been one of greatly increased administrative work. This may be accounted for partly by the unrest created by economic conditions, increased membership interest in organizational work, enlarged organizational activity, increased Committee activity and the creation of new problems occasioned by business, legislative and public proposals. Our County Societies have been more active and have availed themselves in greater degree of the services of the Secretary's office, as they should. In every possible way your Secretary and the service of his office have been unreservedly placed at the membership's disposal. Your Secretary has accepted all but two invitations and of these latter engagements at other places prevented acceptance. Fifty-two full days were given to State visits. More than full time service has been rendered during the year. The spirit of service and helpfulness is ever sought to be made characteristic of your Secretary's administrative acts.

RECOMMENDATIONS

Recorded action and Committee recommendations have, in the main, formulated guiding recommendations. The following recommendations warrant consideration:

(1) That upon Councilor Cook's recommendation the week of February 5 to 11 be designated as an Intensive Membership Campaign Week and the Secretary be instructed to induce, with Councilor coöperation, a planned campaign for solicitation for membership affiliation of every eligible doctor in the State.

(2) That a Secretaries Conference be called for the afternoon and evening before the Special Meeting of the House of Delegates with mileage expense and dinner paid by the Society.

CONCLUSIONS

Twenty years ago this month your body selected me to assume and discharge the duties of the office of Secretary. Looking back over that score of years, a long time, I am impressed with tremendous organizational advancement and expansion that has been recorded. Our Society merits every commendation for all that has been achieved. It has creditably assumed roles of creator, leadership, sponsorship and trusteeship in a march of progress that has remained abreast, and often anticipated, society and civic developments and changing events.

Our history is filled with acts that deserve unstinted approval. We have every reason for pride of and respect for the manner in which our Society has accepted its responsibilities and justified its existence. For all this, credit is due to the Officers, Councilors and Members who gave unselfishly of self and of their thought and time. I am profoundly grateful for having been privileged to serve them and through them the people of our great commonwealth.

Respectfully submitted,
F. C. WARNSHUIS, *Secretary*.

January 6, 1933.

Michigan State Medical Society,
Grand Rapids, Michigan.
Gentlemen:

We have examined the general accounts of the MICHIGAN STATE MEDICAL SOCIETY for the year ended December 24, 1932.

In addition to an examination of the accounts pertaining to the assets and liabilities of the Society at December 24, 1932, we have reviewed the operating accounts and tested the recorded cash transactions for the year then ended. The scope of our work and the extent of the detailed records examined are outlined in later sections of this report.

The Society was incorporated under the laws of Michigan as an association not for pecuniary profit on September 17, 1910. The purpose of the Society is the federation and protection of the medical profession and the extension of medical knowledge.

FINANCIAL ANALYSIS

A balance sheet is included herein which, in our opinion, shows the financial position of the Society as of December 24, 1932, on the basis outlined in this report. The following statement affords a comparison of the assets and liabilities at the beginning and end of the year:

Assets			
	Dec. 24, 1932	Dec. 29, 1931	Increase Decrease
Cash	\$ 459.05	\$	\$ 459.05
Notes and accounts receivable	1,565.56	985.07	580.49
Securities:			
Bonds—at cost	\$43,518.75	\$43,518.75	
Less allowance to reduce to approximate market value	22,583.75	16,159.25	6,424.50
	\$20,935.00	\$27,359.50	\$ 6,424.50
Contract for medical history	3,000.00	3,000.00	
	\$25,959.61	\$31,344.57	\$ 5,384.96
Liabilities			
Bank overdraft	\$	\$ 12.87	\$ 12.87
Notes payable	3,800.00		3,800.00
Accounts payable:			
For services, etc.	\$	\$ 1,483.71	\$ 1,483.71
Joint Committee on Public Health Education	1,813.44	1,037.41	776.03
Couzens Foundation	39.37	468.31	428.94
Advances for reprints	131.50	145.76	14.26
	\$ 1,984.31	\$ 3,135.19	\$ 1,150.88
Reserves:			
For Medico-Legal Defense Fund	\$ 8,107.24	\$11,575.17	\$ 3,467.93
For medical history	3,000.00	3,000.00	
	\$11,107.24	\$14,575.17	\$ 3,467.93
Net worth	9,068.06	13,621.34	4,553.28
	\$25,959.61	\$31,344.57	\$ 5,384.96

Notes receivable were accepted in payment of 1931 and 1932 dues, as authorized by the council. The notes for 1931 dues and a large portion of those for 1932 dues are payable December 1, 1932.

Advertisers' accounts receivable were analyzed according to age and are summarized as follows:

	Date of Charge			
	Dec. 24 1932	Dec. 29, 1931		
	Amount	Per cent	Amount	Per cent
December	\$ 402.75	33.69%	\$ 690.99	67.41%
October and November	219.60	18.37	100.00	9.75
July, August and September	271.16	22.68	97.50	9.51
January to June, inclusive	154.47	12.92	66.08	6.45
Prior to January 1	147.58	12.34	70.50	6.88
TOTAL	\$1,195.56	100.00%	\$1,025.07	100.00%

Accounts receivable for medical history represent valid accounts arising from sales made in 1930.

Based upon our analysis of the notes and accounts and conference with the Secretary as to their collectibility, it is our opinion that the allowance for doubtful in the amount of \$250.00 is sufficient to cover any losses in collection thereof anticipated at December 24, 1932.

A schedule included hereinafter shows the par value, cost and approximate market value of the bonds owned by the Society at December 24, 1932. The market values of all listed securities are based on closing market quotations at December 24, 1932. Unlisted bonds were valued on the basis of information obtained through brokers relative to the most recent bid or sales prices. An allowance in the amount of \$22,583.75 has been provided to reduce the book value of the bonds to approximate market value at December 24, 1932. A portion of this allowance, in the amount of \$7,742.50 represents the shrinkage in book value of bonds set aside as property of the Medico-Legal Defense Fund. Therefore, the additional provision of \$987.00 necessary thereon has been charged against the account of that fund on the books of the Society. Bonds with a par value of \$8,000.00 have been pledged as collateral for notes payable of \$3,800.00.

The contract for medical history in the amount of \$3,900.00 represents the unpaid balance on a contract with the Bruce Publishing Company for 750 sets of the medical history at \$10.00 each. At December 24, 1932, the Society had paid \$4,500.00 on the original contract amount of \$7,500.00. Delivery is made by the publisher as ordered by the Society, whose records indicate approximately 125 sets paid for by the Society but undelivered at December 24, 1932. Owing to the small number of sales during the past two years, no consideration has been given to the inventory value of the unsold histories. Data examined by us indicate that the Bruce Publishing Company undertook the publication of the history on a profit-sharing basis and that, under the contract, there appears to be no further legal liability of the Society therefor. The reserve for medical history represents the unpaid balance of the amount established by the Council in 1930 and, accordingly, is shown in the balance sheet pending its authorization of any change therein.

Provision has been made, as far as we could ascertain, for all known liabilities of the Society at December 24, 1932.

Schedules included hereinafter summarize the recorded transactions of the funds administered by the Society for the Joint Committee on Public Health Education and the Couzens Foundation. The balances show the liability of the Society to these funds at December 24, 1932.

The Medico-Legal Defense Fund has been credited on the basis of \$1.00 for each annual membership paid during the year. A summary of the changes in this fund is included herein which shows a balance of \$8,107.24 at December 24, 1932, after providing for additional shrinkage in the market value of its bonds.

The net worth of the Society decreased \$4,553.28 during the year. Contributing thereto is the addi-

tional provision necessary for the shrinkage in the market value of the Society's bonds in the amount of \$5,437.50.

Surety bonds in favor of the Society in the amounts of \$25,000.00 and \$10,000.00 covering Dr. William A. Hyland and Dr. Frederick C. Warnshuis respectively, were examined by us.

OPERATIONS

We present elsewhere in this report a statement of income and expense setting forth the results from operations for the year ended December 24, 1932. The scope of our examination in connection with the preparation of this statement consisted of test checks of the data entering into the cash and operating transactions as hereinafter outlined. A comparison of the income and expense for the years ended December 24, 1932, and December 29, 1931, is shown by the following summary:

	Year Ended		Increase Decrease
	Dec. 24, 1932	Dec. 29, 1931	
Income			
Membership dues.....	\$21,282.99	\$19,087.00	\$ 2,195.99
Journal subscriptions, advertising, reprints and cuts.....	16,815.03	18,447.33	1,632.30
Interest received.....	1,486.38	1,699.90	213.52
Sales of medical history.....	20.00	228.00	208.00
	\$39,604.40	\$39,462.23	\$ 142.17
Less dues refunded.....	8,132.87		8,132.87
Total Income.....	\$31,471.53	\$39,462.23	\$ 7,990.70
Expenses:			
Society expenses.....	\$17,944.65	\$25,506.08	\$ 7,561.43
Journal expenses.....	12,642.66	15,867.31	3,224.65
Total Expense.....	\$30,587.31	\$41,373.39	\$10,786.08
Net Income or Deficit.....	\$ 884.22	\$ 1,911.16	\$ 2,795.38
In accordance with action of the Council, the reduction of \$2.50 in the 1932 membership dues has been shown as a separate item, which leaves the regular annual dues divided as follows:			
Membership fee.....			\$ 6.50
Journal subscription.....			2.50
Medico-Legal Defense Fund.....			1.00
TOTAL			\$10.00

SCOPE OF EXAMINATION

The scope and nature of our examination are outlined in the following comments:

Cash on deposit was verified by direct correspondence with the depositary bank and reconciliation of the balance reported by it with the amount shown herein. The recorded cash receipts for the year were traced to the bank deposits shown on the bank statements filed in the Society's office. The recorded cash disbursements for two months of the year, selected at random, were found with minor exceptions, to be supported by canceled checks and invoices.

Members' notes receivable were examined by us. Advertisers' accounts and accounts receivable for histories were found to be in agreement with a trial balance of the individual accounts. Advertisers' accounts were analyzed according to age, as hereinbefore outlined, but we did not verify the unpaid balances by correspondence.

Bonds owned by the Society and those belonging to the Medico-Legal Defense Fund were inspected by us, except for \$8,000.00 par value of bonds deposited as collateral for notes payable and \$3,000.00 par value on deposit with the Grand Rapids Trust Company for the bondholders' committee. Bonds not inspected were verified by receipts on file or by correspondence with the holder thereof.

Notes payable were verified by correspondence with the loaning bank.

In addition to a test of the cash transactions as heretofore outlined, we tested membership fees, journal subscriptions and dues credited to the Medico-Legal Defense Fund by comparisons with the Society's paid membership records. Interest received was proved by comparison with a schedule of bond interest rates and maturities and all coupons of defaulted bonds were examined or accounted for. Major expense charges were investigated by us and all items so examined were found to be in order.

Very truly yours,

ERNST & ERNST,
Certified Public Accountants.

BALANCE SHEET MICHIGAN STATE MEDICAL SOCIETY DECEMBER 24, 1932

Assets		
Cash		
On deposit.....	\$ 411.55	
For deposit.....	47.50	\$ 459.05
Notes and Accounts Receivable		
Notes receivable for dues.....	\$ 507.50	
Advertisers' accounts.....	1,195.56	
Accounts receivable for medical history.....	112.50	
	\$ 1,815.56	
Less allowance for doubtful.....	250.00	1,565.56
Securities		
Bonds—at cost (\$8,000.00 par value pledged).....	\$43,518.75	
Less allowance to reduce to approximate market value.....	22,583.75	20,935.00
Contract		
For medical history.....		3,000.00
		\$25,959.61
Liabilities		
Notes Payable		
Old Kent Bank—secured by bonds of \$8,000.00 par value.....		\$ 3,800.00
Accounts Payable		
Joint Committee on Public Health Education.....	\$ 1,813.44	
Couzens Foundation.....	39.37	
Advances for reprints.....	131.50	1,984.31
Reserves		
For Medico-Legal Defense Fund.....	\$ 8,107.24	
For medical history.....	3,000.00	11,107.24
Net Worth		
Balance at December 30, 1931.....	\$13,621.34	
Net profit for the year ended December 24, 1932.....	884.22	
	\$14,505.56	
Less additional provision for the reduction of bonds to market value.....	5,437.50	9,068.06
		\$25,959.61

This balance sheet is subject to the comments contained in this report.

INCOME AND EXPENSE
MICHIGAN STATE MEDICAL SOCIETY

	Year Ended		Increase Decrease
	Dec. 24, 1932	Dec. 29, 1931	
Income			
Membership fees.....	\$21,282.99	\$19,087.00	\$ 2,195.99
Journal subscriptions.....	8,333.17	8,129.32	203.85
Advertising sales.....	6,234.94	8,849.23	2,614.29
Reprint sales.....	1,780.97	1,468.78	312.19
Journal cuts.....	465.95	465.95
Interest received.....	1,486.38	1,699.90	213.52
Sales of medical history.....	20.00	228.00	208.00
	\$39,604.40	\$39,462.23	\$ 142.17
Less dues refunded.....	8,132.87	8,132.87
TOTAL INCOME	\$31,471.53	\$39,462.23	\$ 7,990.70
Expenses			
Society Expense			
Secretary's salary.....	\$ 4,000.00	\$ 6,500.00	\$ 2,500.00
Stenographers' salaries.....	2,369.00	3,016.00	657.00
Office rent and telephone.....	1,250.00	1,800.00	550.00
Postage.....	197.92	405.00	207.08
Printing and stationery.....	588.07	878.71	290.64
Miscellaneous society expense.....	806.63	2,207.21	1,400.58
Council expense.....	996.87	2,036.91	1,040.04
Delegates to the American Medical Society Convention.....	887.44	544.01	343.43
Legislative committee.....	122.17	2,630.87	2,508.70
Post graduate medical conference.....	410.29	769.62	359.33
Annual meeting.....	1,369.06	1,556.31	187.25
Survey of medical service and health agencies.....	4,484.88	108.90	4,375.98
Medical history expense.....	1,609.84	1,609.84
Civic and industrial relations committee.....	9.00	298.02	289.02
Radio committee.....	146.45	104.70	41.75
Cancer committee.....	56.87	39.98	16.89
Donations.....	250.00	1,000.00	750.00
SOCIETY EXPENSES	\$17,944.65	\$25,506.08	\$ 7,561.43
Journal Expense			
Editor's salary.....	\$ 2,500.00	\$ 3,500.00	\$ 1,000.00
Editor's expenses.....	996.15	854.24	141.91
Printing and miscellaneous.....	7,690.38	10,187.52	2,497.14
Reprint expense.....	1,456.13	1,325.55	130.58
JOURNAL EXPENSES	\$12,642.66	\$15,867.31	\$ 3,224.65
TOTAL EXPENSE	\$30,587.31	\$41,373.39	\$10,786.08
NET INCOME OR DEFICIE	\$ 884.22	\$ 1,911.16	\$ 2,795.38

SUMMARY OF CHANGES IN MEDICO-LEGAL DEFENSE

FUND RESERVE
MICHIGAN STATE MEDICAL SOCIETY
YEAR ENDED DECEMBER 24, 1932

Balance—Medico-Legal Defense Fund at December 30, 1931.....			\$11,575.17
Income			
Dues.....		\$ 3,301.01	
Interest received.....		609.00	
			3,910.01
Disbursements			
Douglas, Barbour, Desenberg & Shaeffer for legal services.....	\$ 5,248.93		
George C. Higbee, transcript.....	115.50		
Salary.....	1,000.31		
Postage and miscellaneous.....	26.20		
		\$ 6,390.94	
Additional provision for reduction of bonds to approximate market value.....		987.00	
			7,377.94
Balance—Medico-Legal Defense Fund at December 24, 1932.....			\$ 8,107.24

ANNUAL MEETING EXPENSE—1932

February				Hotel Burdick.....	25.00
Belote, G. H.....	\$ 2.28			Milo Art Studio.....	230.00
Curry, G. J.....	9.26			Hotel Burdick.....	68.30
Gordon, T. D.....	12.00			Andrews, F. T.....	30.80
Harvey, Campbell.....	4.68			Columbia Warehouse.....	15.00
Green, I. W.....	7.70			Hoffman, Caroline.....	17.00
Hayes Hotel.....	32.35			Bruce Publishing Co.....	101.44
Valade, Cyril K.....	10.36			Falls, F. H.....	25.00
Haughey, Wilfred.....	5.40			Kalamazoo Civic Auditorium.....	200.00
Furlong, Harold.....	9.36			Matsner, Eric M.....	98.95
		\$ 93.39		Parkhurst, Howard J.....	23.80
May				Robbins, "Doc".....	21.65
Warnshuis, F. C.....	\$ 12.00	12.00		Senear, Frances E.....	18.00
June				St. Louis Button Co.....	46.90
Mester, Frank J.....	3.50	3.50		Warnshuis, F. C.....	13.75
July				German, Wm. McK.....	30.15
Blue Print Service Shop.....	12.50	12.50		Columbia Electric Co.....	13.90
August				Robb, J. M.....	65.14
Warnshuis, F. C.....	10.16	10.16		Hart, Vernon L.....	45.00
September				Mack, Harold C.....	45.00
Warnshuis, F. C.....	30.20			Straith, Claire L.....	45.00
				Sewell, George.....	45.00
				Geib and Vaughan.....	45.00
					1,299.98

October			
Levine, Samuel	\$ 95.00		
Master Reporting Co.....	169.69		
Westervelt, H. O.....	19.07		
Burke, R. A.....	50.00		
Spooner, C. Martin.....	32.00		
Goldthwaite, Joel E.....	86.44		
		452.20	
November			
Vaughan, Warren T.....	\$ 85.35	85.35	
December			
Andrews, F. T.....	50.00	50.00	
		\$2,019.08	
Credit for Exhibit Booths Sold....		650.02	
		\$1,369.06	

JOURNAL EXPENSE—1932

January			
Copyright	\$ 2.00	\$ 2.00	
February			
Copyright	2.00		
Bruce Publishing Co.—January and February	1,640.44	1,642.44	
March			
Copyright	\$ 2.00		
Bruce Publishing Co.....	688.95	690.95	
April			
Copyright	\$ 2.00		
Bruce Publishing Co.....	586.50	588.50	
May			
Copyright	\$ 2.00		
Bruce Publishing Co.....	599.22	601.22	
June			
Copyright	\$ 2.00		
Bruce Publishing Co.....	623.07	625.07	
July			
Bruce Publishing Co.....	\$ 649.86	649.86	
August			
Bruce Publishing Co.....	486.83	486.83	
September			
Bruce Publishing Co.....	540.20	540.20	
October			
Bruce Publishing Co.....	575.24		
Postage	120.00	695.24	
November			
Bruce Publishing Co.....	\$ 684.35	684.35	
December			
Bruce Publishing Co.....	482.34		
Ward-Schopps—Cut	1.38	483.72	
		\$7,690.38	

SOCIETY EXPENSE—1932

January			
Dunlap, J. H.....	\$ 1.69		
Charts	10.00		
Johnson Co., A. P.....	60.95		
Pantlind Hotel	55.00		
Warnshuis, F. C.....	15.24		
		\$ 142.88	
February			
Columbian Warehouse Co.....	\$ 23.82		
Jones, Jesse	7.50		
Bray, Geo.	5.00		
Addressograph Co.....	5.47		
Barlow Bros.	19.50		
Bixby's	3.35		
Hoogerhyde, John M.....	26.00		
Johnson Co., A. P.....	35.46		
Master Reporting Co.....	53.55		
Richards Storage Co.....	4.00		
Robb, J. M.....	27.98		
Taylor's	10.00		
Taylor-Husted	4.15		
Ten Broek & Son, H. W.....	60.00		
Tisch-Hine Co.....	3.45		
Western Union	4.15		
Warnshuis, F. C.....	30.96		
Dunlap, J. H.....	1.11		
		325.45	
March			
Addressograph Co.....	\$ 1.97		
Bixby Office Supply Co.....	2.35		
Ernst & Ernst	176.98		
Johnson Co., A. P.....	75.90		
Richards Storage Corp.....	2.00		
Taylor's	2.70		
Western Union	3.67		
Warnshuis, F. C.....	6.11	271.68	

April			
Ten Broek, H. W.....	\$ 15.00		
Addressograph Co.....	2.63		
Richards Storage Co.....	2.00		
Taylor's	1.00		
Western Union	1.16	21.79	
May			
Addressograph Co.....	\$ 3.65		
Richards Storage Co.....	2.00		
Western Union	1.05	6.70	
June			
Addressograph Co.....	\$ 1.29		
Taylor's	6.10	7.39	
July			
Addressograph Co.	\$ 2.41		
Richards Storage	2.00		
Taylor's	2.90		
Bixby Office Supply Co.....	4.00	11.31	
August			
Charge on 13 checks.....	\$.26		
Richards Storage Co.....	4.00		
Terryberry, H. R.....	36.75		
Ward-Schopps Co.....	20.25		
Western Union	1.42		
Addressograph Co.	1.88		
Moll, Carl	65.25	129.81	
September			
27 Checks—charge.....	\$.54		
Addressograph Co.	1.63		
Taylor's	29.25		
Ward-Schopps Co.....	29.25		
Long Distance Calls.....	4.55		
Moll, Carl F.....	51.88	92.65	
October			
36 Checks—Charge	\$.72		
G. R. Insurance Agency.....	43.50		
Taylor's	12.15		
Ward-Schopps	180.13		
Western Union	2.75	239.25	
November			
45 Checks—Charge	\$.90		
Addressograph Co.....	1.00		
Ward-Schopps Co.	56.45		
Taylor's	7.00		
Survey Expense	9.68	75.03	
December			
35 Checks—Charge	\$.70		
Expenses—Ingham County Conf..	9.81		
J. M. Robb.....	13.64		
University Press—Chicago.....	6.00		
Storage on Viewing boxes.....	15.00		
Emily Graversen	5.00		
Caroline Hoffman	15.00		
Addressograph Co.....	6.99		
Arthur Crabb	10.40		
Jay Mertz	1.00		
Hotel Statler	18.60		
Taylor's	5.25		
Ward-Schopps Co.	3.50		
Western Union	5.03		
Long Distance Calls.....	2.75		
Addressograph Co.....	1.45		
Joint Committee	250.00		
Allowance on Histories.....	6.25		
December—check charge64	377.01	
		\$1,700.95	

CREDITS

G. R. Insurance Agency.....	\$ 39.25	
Return on R. R. Smith dinner.....	17.00	56.25
		\$1,644.70

COUNCIL EXPENSE—1932

Note: Executive Committee Expenses are included in Chairman's and Secretary's accounts.

January			
Statler Hotel	\$ 59.69		
Statler Hotel	22.65		
		\$ 82.34	
February			
Burke, R. A.....	\$ 50.00		
Corbus, B. R.....	109.16		
Hafford, George C.....	52.15		
Haughey, Wilfred	16.30		
MacMullen, Harlen	104.20		

	Neafie, C. A.....	9.00	
	Powers, Julius H.....	29.80	
	Van Leuven, B. H.....	17.20	
			387.81
April	McIntyre, J. E.....	\$ 81.40	81.40
May	Warnshuis, F. C.....	11.75	
	Le Fevre, George.....	71.00	
			82.75
July	Corbus, B. R.....	\$ 104.15	
	Warnshuis, F. C.....	8.62	
			112.77
August	Moll, Carl F.....	\$ 95.55	95.55
October	Cook, Henry.....	\$ 13.60	
	MacMullen, Harlen.....	27.40	
	Warnshuis, F. C.....	16.26	
			57.26
November	Heavenrich, Theodore.....	\$ 18.50	
	Statler Hotel.....	30.60	
			49.10
December	Robb, J. M.....	\$ 19.00	
	MacMullen, Harlen.....	8.40	
	Cook, Henry.....	20.50	
	Corbus, B. R.....	109.15	
			157.05
			\$1,106.03
	Less—Expense Item B. R. Corbus		
	—charged to 1931 expense....	109.16	
			\$ 996.87

LEGISLATIVE COMMITTEE—EXPENSES 1932

February	Whittaker, Alfred H.....	\$50.00	
	Carr, Earl I.....	8.99	
			58.99
April	Wayne County Medical Society.....	14.00	14.00
June	Carr, Earl I.....	49.18	49.18
			\$122.17

CIVIC AND INDUSTRIAL RELATIONS COMMITTEE—EXPENSES 1932

February	Collisi, Harrison S.....	\$9.00	
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CANCER COMMITTEE—EXPENSE 1932

February	Cuts—Article by Dr. Dutchess.....	\$56.87	
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DELEGATES TO AMERICAN MEDICAL ASSN.—EXPENSES 1932

May	Brooks, J. D.....	\$175.84	
	Gorsline, C. S.....	170.75	
	Hirschman, L. J.....	179.25	
	Luce, H. A.....	183.90	
	Moll, Carl F.....	175.00	
			\$884.74
June	Error check J. D. Brook.....	\$ 2.70	2.70
			\$887.44

HEALTH AGENCIES SURVEY—EXPENSES 1932

January	Warnshuis, F. C.....	\$ 14.32	
	Typing Reports of Committee.....	21.50	
			\$ 35.82
February	Baker, F. A.....	\$ 20.84	
	Estabrook, B. U.....	20.00	
	Gorsline, C. S.....	16.60	
	Marshall, W. H.....	25.00	
			82.44
March	Baker, F. A.....	\$ 8.88	8.88
April	Sinai, N.....	121.76	
	Warnshuis, F. C.....	9.68	
	Kent County Medical Society.....	100.00	
			231.44
May	Sinai, N.—Postage.....	\$ 200.00	
	Baker, F. A.....	11.84	
	Estabrook, Bert U.....	20.00	
	Gorsline, C. S.....	7.36	
	Johnson Co., A. P.—printing.....	190.00	
	Sinai, N.—Salary—March 15 to		
	May 15.....	500.00	
	Sinai, N.—Expenses.....	106.85	
			1,036.95

June	Christian, L. G.....	\$ 34.60	
	Johnson Co., A. P.—printing.....	123.05	
	Sinai, N.—salary.....	250.00	
	Sinai, N.—expenses.....	116.27	
			523.92
July	Sinai, N.—salary.....	\$ 250.00	
	Sinai, N.—expenses.....	62.34	
	Sinai, N.—expenses.....	500.00	
			812.34
August	Sinai, N.—salary.....	\$ 250.00	
	Sinai, N.—expenses.....	63.97	
			313.97
September	Baker, F. A.....	\$ 23.02	
	Ward-Schopps Co.—printing.....	23.00	
	Sinai, N.—expenses.....	75.87	
			121.89
October	Sinai, N.—expenses.....	\$ 300.00	
	Baker, F. A.....	8.88	
	Ward-Schopps Co.—printing.....	20.72	
	Sinai, N.—salary.....	250.00	
	Sinai, N.—expenses.....	55.49	
			635.09
November	Sinai, N.—salary.....	\$ 250.00	
	Sinai, N.—expenses.....	91.94	
	Gorsline, C. S.....	5.52	
			347.46
December	Estabrook, B. U.....	\$ 10.00	
	Gorsline, C. S.....	5.52	
	Sinai, N.—salary.....	250.00	
	Sinai, N.—expenses.....	70.28	
	Baker, F. A.....	8.88	
			344.68
			\$4,494.88
	Overpayment on check—May, 1932....	10.00	
			\$4,484.88

JOINT COMMITTEE—EXPENSES 1932

February	Salaries—January and February....	\$ 350.00	\$ 350.00
March	Salaries.....	175.00	
	Lyons, Don C.....	48.00	
			223.00
April	Salaries.....	\$ 175.00	175.00
May	Salaries.....	175.00	175.00
June	Salaries.....	175.00	
	Alumni Press.....	17.75	
	Mayer-Schairer Co.....	21.00	
			213.75
July	Salaries.....	\$ 175.00	175.00
August	Salaries.....	175.00	175.00
September	Salaries.....	175.00	
	Lyons, Don C.....	50.00	
	Mayer-Schairer Co.....	21.00	
			246.00
October	Salaries.....	\$ 175.00	
	Ann Arbor Press.....	18.25	
			193.25
November	Salaries.....	\$ 175.00	
	Mayer-Schairer Co.....	21.00	
			196.00
December	Salaries.....	\$ 175.00	175.00
			\$2,297.00

COUZENS FOUNDATION—EXPENSE 1932

	Balance from 1931.....		\$468.31
July	Cowie, D. M.....	\$140.00	
	Levy, David J.....	90.00	
	Garvey, J. L.....	77.86	
	Waggoner, R. W.....	104.00	
			\$411.86
October	Postage—postgraduate		
	Conference—Marquette—June	\$8.54	
	Postage—postgraduate		
	Conference—Marquette—Oct.	8.54	17.08
			428.94
	Balance—December, 1932.....		\$39.37

JOINT COMMITTEE—CREDITS 1932

Balance from 1931	\$1,037.41
March	
University of Michigan—donation	\$ 125.00
Michigan State Nurses—donation	25.00
Michigan State Dental—donation	125.00
Mich. Tuberculosis Ass'n—donation	75.00
	\$ 350.00
May	
Michigan Hospital Ass'n—donation	\$ 100.00
Children's Fund—donation	1,200.00
Detroit News	576.90
	1,876.90
June	
Detroit News	\$ 96.15
Detroit News	76.92
	173.07
July	
Detroit News	\$ 76.92
Detroit News	76.92
Detroit News	173.07
Detroit News	96.15
	423.06
December	
Michigan State Medical Society donation	\$ 250.00
	250.00
	\$4,110.44
Less—Expenses for 1932	2,297.00
Balance on hand—December, 1932	\$1,813.44

MEDICO-LEGAL DEFENSE—RECEIPTS AND DISBURSEMENTS—1932

RECEIPTS	
Balance from 1931	\$4,220.67
Dec. 30, 1931—Bills Payable	1,374.55
January—dues	159.00
February—dues	654.00
March—dues	505.00
April—dues	1,238.00
May—dues	166.75
June—dues	180.00
June—interest on bonds	289.50
July—dues	115.50
July—interest on bonds	27.50
August—dues	159.76
September—dues	41.25
October—dues	28.00
November—dues	32.00
November—interest on bonds	262.00
December—dues	20.75
December—interest on bonds	30.00
	\$9,595.23

DISBURSEMENTS

February	
Stapleton, Wm., January and February salary	\$ 166.66
Douglas-Barbour	505.85
Douglas-Barbour	347.20
	\$1,019.71
March	
Stapleton, Wm. J.	\$ 83.33
Douglas-Barbour	1,375.74
	1,459.07
April	
Stapleton, Wm. J.	\$ 83.33
Douglas-Barbour	404.25
	487.58
May	
Stapleton, Wm. J.	\$ 83.33
Stapleton, Wm. J.—Exp.	5.20
Douglas-Barbour	429.40
	517.93

June	
Stapleton, Wm. J.	\$ 83.33
Douglas-Barbour	304.00
Coupons returned	90.00
	477.33
July	
Stapleton, Wm. J.	\$ 83.33
Stapleton, Wm. J.—Exp.	5.00
Douglas-Barbour	300.00
	385.33
August	
Stapleton, Wm. J.	\$ 83.33
Douglas-Barbour	285.50
	368.83
September	
Stapleton, Wm. J.	\$ 83.33
Douglas-Barbour	817.40
	900.73
October	
Stapleton, Wm. J.	\$ 83.33
	83.33
November	
Stapleton, Wm. J.	\$ 83.33
Stapleton, Wm. J.—Exp.	5.00
Douglas-Barbour	1,031.30
Higbee, Geo. C.	115.50
	1,235.13
December	
Stapleton, Wm. J.	\$ 83.68
Douglas-Barbour	100.00
American Medical Assoc. 2 books	14.00
Douglas-Barbour	722.84
	920.52

\$7,855.49 \$9,595.23
7,855.49

Balance \$1,739.74

POSTGRADUATE CONFERENCES
EXPENSES—1932

April	
Collisi, H. S.	\$ 8.22
Johnson Co., A. P., Ptg.	28.90
Gordon, T. D.	8.22
Whinery, J. B.	8.22
	\$ 53.56
June	
Maddock, W. G.	\$99.25
Corbus, B. C.	84.38
Sinai, Nathan	97.70
Warnshuis, F. C.	7.75
	289.08
July	
Corbus, B. R.	\$10.00
	10.00
November	
Collisi, H. S.	\$12.74
Warnshuis, F. C.	2.75
	15.49
December	
Ward Schoppes, ptg.	\$7.40
Warnshuis, F. C.	16.76
Corbus, B. R.	18.00
	42.16
	\$410.29

RADIO COMMITTEE EXPENSE—1932

May	
Taylor-Husted Letter Shop	\$45.25
	\$ 45.25
October	
Typing Talks	50.00
	50.00
December	
Typing Talks	51.20
	51.20
	\$146.45

EXPENSES—1932

	Editor	Editor Expense	Rent	Postage	Reprint Expense	Secretary	Stenographers
January	\$ 208.33	\$ 72.15	\$ 150.00			\$ 333.00	\$ 200.00
February	208.00	84.00	100.00		\$ 212.98	333.00	200.00
March	208.00	84.00	100.00	\$ 60.00	248.55	333.00	200.00
April	208.00	84.00	100.00	60.00	61.45	333.00	200.00
May	208.00	84.00	100.00	30.00	114.30	333.00	200.00
June	208.00	84.00	100.00	30.00	96.55	333.00	200.00
July	208.00	84.00	100.00	5.00	186.90	333.00	140.00
August	208.00	84.00	100.00	30.00	109.15	333.00	140.00
September	208.00	84.00	100.00	30.00	168.55	333.00	140.00
October	208.00	84.00	100.00	30.00		333.00	140.00
November	208.00	84.00	100.00	30.00	73.75	333.00	175.00
December	211.67	84.00	100.00	30.00	183.95	333.00	230.00
	\$2,500.00	\$996.15	\$1,250.00	\$335.00	\$1,456.13	\$4,000.00	\$2,165.00
				120.00	Cr. to Journal Exp.		
				\$215.00			
				17.08	Cr. to Couzens Fund		
				\$197.92			

5. The Treasurer, Wm. A. Hyland, submitted the following report which was referred to the Finance Committee.

TREASURER'S REPORT

Members of the Council:

Shortly after my election as Treasurer, I filed with the State Secretary my indemnity bond as required by the by-laws. In the presence of the Secretary, Dr. Wenger, retiring Treasurer, transferred to me the following bonds which I now hold, with the exceptions as noted in paragraph three:

American Telephone & Telegraph Co...	6%	\$2,000
American Telephone & Telegraph Co...	5%	2,000
Association Gas & Electric Corp.....	5%	2,000
Broadway Building—First Mortgage....	6%	2,000
Community Power & Light Co.....	5%	2,000
Grand Rapids Affiliated Corp.....	5%	2,000
Herald Square Building.....	6%	2,000
International Tel. & Telegraph Co.....	5%	2,000
National Electric Power Co.....	5%	5,000
National Gas & Electric Corp.....	6%	2,400
New England Gas & Electric Co.....	5%	2,000
Palmer Building Corporation.....	6%	2,000
Pennsylvania Railroad Co.....	5%	2,000
Peoples Light & Power Corp.....	5½%	2,000
United Light & Power Corp.....	5½%	2,000

In December I deposited with the Secretary \$8,000 in bonds used as collateral for a temporary loan of \$3,800.00 from the Old Kent Bank and hold receipt for them. I understand these bonds will be returned to my custody when this loan is paid in February. I also hold receipt for \$3,000.00—Michigan Fuel and Light Co.—6%, signed by the Grand Rapids Trust Co.

Respectfully,
WILLIAM A. HYLAND, *Treasurer*.

6. The Editor, J. H. Dempster, submitted the following report which was referred to the Publication Committee.

EDITOR'S ANNUAL REPORT

To the President, Chairman, Publication Committee and Members of the Council:

You have had the opportunity twelve times the past year of viewing and passing judgment on the work of the editor of your Journal. On the quality of that work it goes without saying I have nothing to report.

Volume 31 (1932) contains 142 pages less than volume 30 (1931). At six dollars a page this means a decrease in cost of publication of \$852.00. There were fewer contributed papers printed, namely 112 as compared with 126, in 1931. Decrease in the size, however, does not necessarily mean sacrifice in quality. Every effort has been made to maintain a high standard not only in contributed papers but in typography and arrangement of the material. And here is my annual commendation of the very excellent craftsmanship as well as coöperation on the part of the printer, The Bruce Publishing Company.

Regarding contributed articles to the Journal I think all will agree that a high standard has been maintained during the past year. The papers by Dr. Lewis which constitute the Beaumont lectures in connection with the Wayne County Medical Society and that on Therapeutic Radiology in Relation to Infancy and Childhood by A. A. Desjardins, presented at the Pediatric Section of the Michigan State Medical Society, are worthy of particular mention as embodying the results of research in subjects of vital importance to medicine.

The editor is still confronted with the problem of handling papers of inordinate length. The

exigencies of economy demand curtailment of space. A number of writers, on the other hand, in their attempt to exhaust their subjects have tended to become discursive. In several instances it was necessary to return papers for condensation. This situation is not by any means confined to the Journal of the Michigan State Medical Society. Many journals in pure science find it difficult to print all papers of merit submitted to them for consideration, hence charge the authors of accepted papers not only for illustrations (as has been the custom of our Journal for a number of years) but also make a nominal charge per page of printed matter (which we have not done).

Regarding the editorial department the editor reports with some diffidence. He can only say that editorials cost a great deal more in time and effort than often appears to the reader. Editing a monthly publication has certain advantages. One has time to revise his work, to lay it aside and return to it with the advantage of a perspective that is not accorded the editor of a daily or weekly periodical. Irving Cobb once said when he has an inspiration he sits down and grinds out copy at the rate of an inch an hour and punctuates it with perspiration. We amateurs may take heart when we behold the experience of the professional. An editor should read widely sometimes in fields that may seem remote from medicine. It is important to maintain a clear, concise and if possible convincing style and this can be done only by constant study of good models of English.

A concerted effort on the part of our readers to urge upon advertisers the desirability of eliminating third class advertising matter received each day, most of which goes directly into our waste baskets, and the advisability of advertising in the pages of the Journal would not only enable us to publish a larger and better journal, but it would mean more to the advertiser as well, since it would give him a permanent advertisement in the pages of this Journal which should mean more to him in financial returns on his product.

J. H. DEMPSTER, *Editor*.

7. Dr. Wm. J. Stapleton, Jr., Chairman of the Medico-Legal Committee, submitted the following report which was referred to the Committee on County Societies:

REPORT OF THE MEDICO-LEGAL COMMITTEE

To The Council of the
Michigan State Medical Society

Herein is the annual report of the Medico-Legal Committee for the year 1932.

The experience of the insurance companies as well as our own, shows there has been a definite increase in the last year in the number of suits and threats against our members for alleged malpractice.

It is apparent that the medical defense plan of the Michigan State Medical Society (and here I stop to say a word of appreciation for the splendid work of the late Dr. Frank B. Tibbals, father of the plan and its Chairman for 20 years) which has for its purpose the safeguarding of the medical profession from unjust and malicious suits, is a very important function of our Society.

It is evident by the records of the past year that any efforts made for the prevention of malpractice suits will be of little avail so long as some doctors fail to give their coöperation and help. All our

efforts to educate in this direction have failed so far to stop the "Malpractice Industry," which is extremely active in Michigan and especially so in certain districts. I attach to this report a letter from our attorney, Mr. Herbert Barbour, regarding the above.

MEDICAL DEFENSE NOT INSURANCE

The Medical Defense Plan is not and should not be considered insurance, as the term is applied to indemnity. While the Society will carry the case through all the Courts, it does not pay damages. It is entirely up to the doctor whether or not he wishes to carry indemnity insurance against malpractice; many of our members do and some do not. We suggest that, in carrying indemnity insurance, the physician exercise care in picking out a company of sound financial standing and with a reputation for fair play and honest dealings. I might say that our dealings with the various companies doing business in Michigan have been uniformly pleasant and most coöperative. Some of the companies are even limiting their policies to physicians who are members of their County and State Societies.

The Medico-Legal Committee besides furnishing machinery for the defense of suits is called upon to answer all sorts of questions and to give advice. Example:

What Insurance Company shall I use? Does an Interne come under the compensation act? Question of wording our membership cards, etc. Question as to ethics, advertising, signs and collection agencies. Authority as to whether an eldest son could give consent for husband in regard to a post-mortem. Question as to who owns X-ray films.

Letters regarding whether insurance companies, should pay expert medical fees to doctors appearing for defense.

Your Committee studied the proper wording for membership cards in M. S. M. S. The following wording was adopted as legal after consultation with our attorney, Dr. Warnshuis and the Council:

"He is a member of the M. S. M. S. and is entitled to membership benefits as provided for in the Constitution and By-Laws of the State Society."

It is suggested that the component County Societies use the above on their membership cards.

SUMMARY OF CASES

Classification 1.—Medical Cases which have been completed; total 54—Medico-Legal Committee, 30.

Classification 2.—Medical Cases in which suits have been started but the cases have not been completed; total, 28—Medico-Legal Committee, 26.

Classification 3.—Medical Cases in which no suits have ever been started—in other words, Threats; total, 43—Medico-Legal Committee, 17.

A total of Medical Cases, 125.

CLASSIFICATION OF SUITS—PARTIAL

Fractures and dislocations, 31	} Total, 7
Confinement cases, 4	
Refusal to answer calls, 1	
Abortion, 1	
Injury of eye at birth, 1	}
Tonsils—Hemorrhage and death, 6	
Sponge in abdomen, 2	
Safety pin in abdomen, 1	
Tuberculosis, improper treatment, 1	
Removal of nails of great toes, 1	
Too tight bandages, 1	
Herniotomy, bad results, 5	
Appendicitis operation, 3	
Osteopathy, right to perform operation, 1	
Hemorrhoid operation, death, 1	
Blood transfusion, 1	
Lamp, 5	

Electric knife, 1
 Electric needle, 1
 Hot water bottle, 2
 X-ray burn, 1
 Ether burn of eye, 1
 Eye case, 4
 Infection of nose, 1
 Insurance case, 1. Placing woman in hospital without consent.
 Lumbar puncture, 1
 Failure to make proper diagnosis—spinal meningitis, 1
 Failure to make proper diagnosis—infantile paralysis, 2
 Removal of foreign body from wrist, 1
 Claim doctor made patient morphine addict, 1
 Massage, causing blindness, 1
 Question of ownership of X-ray films
 Patient jumping from window, 1
 Operation without consent, 1

BASIS OF ACTION

1. Loose talk and unwise comments of fellow practitioners; this is one of the prevailing causes.
2. Dissatisfied patients and attorneys who hope to profit by instituting suit hoping for a judgment or a settlement by the doctor to avoid notoriety, etc.
3. Criticisms by relatives and friends of patients.
4. Not having X-ray made of all fracture cases before and after treatment. Don't let patients tell you they have not the money—they always get the plates for a suit. So many suits are brought in fracture cases that the advice as to X-ray is most important. We also suggest, in complicated cases, consultations.
5. Not keeping accurate records.
6. Negligence of assistants.
7. Contributory negligence.

SUMMARY

Your Committee has from time to time caused articles to be printed in the State Journal and the Wayne County Medical Bulletin calling attention to the prevalence of malpractice suits. Unfortunately the messages do not seem to reach those who need them the most. We suggest the following:

1. That the individual physician know the law regarding his rights and liabilities.
2. That the various County Societies hold discussions frequently on this most important question.
3. That doctors keep in good standing in their local and state societies. That they also carry indemnity insurance.
4. Watch out when a disgruntled patient comes back to you. Make perfectly certain that he is not trying to re-establish your status as a physician in his particular trouble.
5. It is suggested that physicians wait two years before suing for a bill. After two years time, no claim of malpractice can be brought as a counter-claim.
6. That we all stand together and remember "The Golden Rule."

WHAT TO DO IF THREATENED WITH A SUIT

When sued or threatened with a suit, a member should immediately notify the Chairman of the Medico-Legal Committee. In this manner he may have the assistance of his Chairman of the local county society. He will then be sent blanks to be filled out in duplicate and return at once to the Chairman with a copy of any papers served on him. Provided the physician sued is eligible to defense under the rules and regulations of the Defense Plan, the Committee takes the necessary steps to carry his defense to a successful termination.

When the defense is conducted by the State Society, members of the county medical societies, with-

out thought of pecuniary return, should give not only their moral support, but as far as possible take an active part in the conduct of the trial, doing all in their power to assist.

CONCLUSION

The Chairman wishes to thank the members of the Committee for their hearty coöperation in carrying on the work of the Medico-Legal Committee.

Thanks are also due Mr. Herbert Barbour and his office. Mr. Purdy has been most helpful and also Mr. Desenberg. There is a tremendous amount of work done by the Committee and Mr. Barbour's office which does not show in this report.

Respectfully submitted,

MEDICO-LEGAL COMMITTEE

WM. J. STAPLETON, JR., M.D., *Chairman*,

ANGUS McLEAN, M.D.

J. G. MANWARING, M.D.

J. D. BRUCE, M.D.

EARL I. CARR, M.D.

8. Official statement by the Council on the report of the Committee on the Cost of Medical Care. The Chairman and Secretary presented the following statement, which, after mature discussion and certain revisions, was adopted upon motion of Councilors Cook-Urmston.

OFFICIAL STATEMENT BY THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY, ADOPTED JANUARY 12, 1933

Economic distress creates a demand that special efforts be made to provide adequate medical care for all who are in need and to safeguard the health welfare of our citizens. The medical profession of Michigan, represented by the State Medical Society, always has and always will concern itself with this problem that is so vital to public welfare and protection. The Council of the Michigan State Medical Society therefore issues the following statement:

Various programs and plans for providing medical care have been and are being advanced. Insurance corporations and lay groups and clubs are holding out to provide medical care upon payment of premiums that vary as to their assessment rates. None of these proposals are adequate, many are unsound in principle and practice, some are palpably detrimental. *There is no single plan or scheme that is applicable to every community.*

Such programs may gain impetus from the recent report of the Committee on the Cost of Medical Care. Careful analysis of that report and its recommendations should be undertaken before any attempt is made to institute them.

The profession is in accord with the report's advocacy of greater attention to disease prevention, immunization and sanita-

tion. Where the majority report leans to plans which are definitely socialistic in character, we feel confident that the proper quality of medical care can only result from and by maintaining the personal and confidential relationship between patient and physician.

We are fully conscious that the present day application of our knowledge of diagnosis, treatment and prevention of disease lags behind the needs. We are equally conscious that there is an unequal distribution of the best quality of medical care, together with an unequal distribution of its costs. We will not admit that the solution of the problem requires such an over-turning of the traditions of medicine as is suggested in the majority report.

The profession is sympathetic with the Minority Report and adopts it as expressive of the principles that must be observed in sound, adequate medical practice. We recommend that these principles be observed and adhered to when consideration is being given to the formulation of local plans and policies for providing adequate medical care.

The State Medical Society directs attention to the fact that the majority of the competent, legally qualified ethical physicians of any community belong to their county medical society. These members should maintain contact and join in study and labor with all local officials, agencies or organizations concerned with health activities and welfare. They are intimately familiar with local conditions and needs. They are in a position to advise wisely and soundly for the community's best interests. Consulted freely, their advice and guidance will be of greater practical value than that of distant theorists and idealists who in the main lack practical bedside practice experience.

The medical society of every county, through its members, is prepared and willing to be of helpful assistance in developing plans and rendering professional service for the providing of adequate medical care for all classes. In the main this is a local problem to be solved by the citizens of local communities.

The Council, Michigan State
Medical Society

B. R. CORBUS, *Chairman*,

F. C. WARSHUIS, *Secretary*.

9. The Council then recessed to join at luncheon the Joint Committee on Public Health Education.

AFTERNOON SESSION

10. Following recess the Council was called to order by the Chairman with all the Councilors present who were in attendance at the morning session.

11. Councilor Henry R. Carstens, Chairman of the Finance Committee, presented the following report which consisted of presentation of the budget for 1933. Certain items consisting of tentative figures were presented for the full discussion of the Council. Upon motion of Councilors Brunk-McIntyre, the Editor's salary was fixed at \$2,500.

Upon motion of McIntyre-Neafie an appropriation for stenographic services for the editor was fixed at \$600.

Upon motion of Cook-McIntyre, the following budget was approved for 1933:

BUDGET 1933

INCOME

3,300 Members at \$8.75.....	\$28,875.00
Interest	900.00
	<u>\$29,775.00</u>

APPROPRIATIONS

Defense Fund at \$2.00.....	\$ 6,600.00
Journal Subscriptions at \$1.50.....	4,950.00
Rent, Phone, Light and Power.....	1,400.00
Annual Meeting	1,250.00
Post-Graduate Conferences.....	750.00
Committee Expense.....	500.00
Legal Committee	750.00
Council Expense.....	1,200.00
Postage	400.00
Delegates A. M. A.....	500.00
Joint Committee.....	250.00
Stenographic	2,500.00
Secretary	4,000.00
Survey Committee.....	3,000.00
Society General Expense.....	1,500.00
Contingent for Legislative and Special Committees	225.00
	<u>\$29,775.00</u>

JOURNAL

Advertising	\$ 6,500.00
Subscriptions	4,950.00
	<u>\$11,450.00</u>

EXPENSES

Printing	\$ 8,000.00
Editor	2,500.00
Editor's Expense	600.00
Postage	50.00
Reserve	300.00
	<u>\$11,450.00</u>

12. In view of the recommendation of the auditors and after reviewing the contract with the Bruce Publishing Co., upon motion of Boys-Urmston, the item of \$3,000 set up as a reserve for future sales of the History was removed from the liability account of the Society.

13. The report of the Committee on County Societies, Councilor Boys, Chairman of the Committee, submitted the following report:

COUNTY SOCIETIES

A. We recommend the adoption of the annual report of the Secretary as read and wish to compliment him upon its completeness and the efficient manner in which the work of this office has been carried on during the past year.

B. The Medico-Legal Committee's report. Concurring with the discussion engaged in by the Council, the Committee recommends that our By-Laws be changed so as to re-organize the Medico-Legal Committee by creating the office of Secretary of the Medico-Legal Committee, who shall be its executive officer active under the supervision of the committee and that such amendments be presented at the next meeting of the House of Delegates.

C. We endorse the report of the Chairman of the Medico-Legal Committee and commend the diligence of the Chairman.

D. We endorse the legal form suggested for membership cards and recommend its adoption by all county medical societies who issue individual membership cards.

E. The committee recommends a strict compliance with the provisions of the By-Laws that provide that legal defense shall only be provided to those members of the society who are in good standing.

F. We recommend that no reimbursements be made to members giving testimony in behalf of other members, and are of the opinion that such service should be rendered as a matter of professional courtesy.

G. We approve and endorse the official statement made by the Legal Counsel of the committee.

H. As revised we endorse and approve the official statement of the Council upon the report of the Committee on the Cost of Medical Care, and recommend that it be given state-wide publicity.

Signed by the Committee,

C. E. BOYS, *Chairman*
B. H. VAN LEUVEN
PAUL URMSTON.

14. Upon motion of Neafie-McIntyre, the report of the Committee on County Societies was adopted.

15. The Chairman of the Publication committee, J. D. Bruce, presented the following report, which, upon motion of Neafie-Boys, was adopted.

REPORT OF PUBLICATION COMMITTEE

Your Committee has had the opportunity lately to look over a number of state journals, and it is gratifying to know that the MICHIGAN STATE MEDICAL JOURNAL does not suffer by comparison. There have been discussions from time to time concerning the employment of a full-time editor-secretary. There is much to say for full time—as Dr. Johnson used to say, "I dread the man of one book." Entire devotion to one job, everything else being equal, is a very practical way of getting the job well done. However, as one scans the pages of our Journal and views the widely diverging interests shown in the products of the editor and of the secretary, one must be impressed with the wide variation in personality, taste and equipment as each one functions in his special capacity.

There always is a quickening of interest with the coming of the Journal. Without a special study one gets the impression that there is a singular absence of padding or filler. Space always is conserved and the scientific articles pared down with no loss of educational value and, oftentimes, with added clarity of expression. The editorial comments and reviews are read with delight and with the feeling that one is in the presence of a master of the written word and a connoisseur of ethical and esthetic values. In the secretary's columns one takes a refreshing plunge into the very midst of organizational activities, where facts and figures are clearly presented, and friends and associates from distant counties are brought most realistically to our fireside.

The difficulties of the financial situation over the last three years have necessitated many economies and the discussion of many more. In regard to a reduction in the size of the Journal, we have considered reducing the number of scientific articles, of reducing the editorial space, and of restricting the space devoted to organizational activities and county society reports.

If the leisure now enforced upon us is to be profitably conserved, it is a time, above all others, when the scientific spirit should be encouraged. The increasing number of scientific articles coming to the Journal is unmistakable evidence that our members are making the most of this opportunity for research and study. To restrict them in their laudable desire to bring the results of their work to the attention of the profession could not be logically defended and, within reasonable limits, the pages of the Journal should still be open to them. In addition to this, those of us untrained in research methods and ungifted in the art of writing should not, with time at our disposal, be denied access to the results of their labor.

On the editorial pages appear not only discussions of strictly medical interest, but excursions into other fields—in science, in philosophy, and into those broader channels of human interest, which have for all time contributed so notably to the usefulness of those occupied in fields of higher technics and learning, and probably more particularly in the field of medicine. To place further limitations upon the reasonable space now devoted to this important function would, we believe, be unfair to our membership at a time when reduced incomes seriously interfere with purchase of books and periodicals necessary for the profitable employment of leisure periods.

In normal times, whatever these may be, one might make an interesting academic discussion of the relative merits of the three divisions under consideration—the scientific, the editorial, and the organizational.

Convinced of the soundness of our views of the two preceding problems, we recommend, with equal conviction, the continuance of the space devoted to organizational activities as important factors in the successful functioning of our Society. In these columns will be found reports of all activities, from those of the administrative organization and special study groups to accounts of Society affairs. In addition to these are the reports of the activities of various agencies affecting, directly or indirectly, our membership. Large numbers of our membership have no access to this information except through these columns.

The question advanced by the Executive Committee on the desirability of uniting with the State Dental Society in a combined dental and medical journal presents many attractive features. Unofficial conversation with some members of the Council of the State Dental Society reveals interest on their part.

Your Committee feels that this suggestion is of sufficient importance and promise to merit intensive and protracted study. There is, indeed, much common ground upon which to build such a prospected structure. Closer contact between medicine and dentistry would doubtless reveal more common problems than are now apparent, and your committee is in accord with any effort that tends to bring our professions into positions of greater mutual usefulness. We recommend further study of this problem and further discussion with the editor of the State Dental Journal and with members of the Council of the State Dental Society.

Respectfully submitted,

A. S. BRÜNK,
J. E. MCINTYRE,
J. D. BRUCE.

MISCELLANEOUS AND NEW BUSINESS

16. Upon motion of Powers-McIntyre, the Executive Committee was empowered, after consultation with the committee on Medical Survey, to designate the date of the special meeting of the House of Delegates to receive and consider that committee's report. Carried.

It is the understanding of the Council that during the latter part of February the Committee will begin distributing to members of the House of Delegates certain summarizations of its work in order that delegates may be more intelligently informed upon the final report that is to be rendered by the Committee. Upon Councilor Powers' suggestion the Secretary was directed to impart this information to the county societies in order that there might be no misunderstanding as to the reason that impelled postponement of the date for holding this special meeting until the latter part of March.

17. The Council gave consideration to the place for holding the special meeting of the House of Delegates. Nominations were received from Bay City, Grand Rapids and Detroit. Upon ballot Detroit was designated as the place for holding the special meeting of the House of Delegates.

18. The Secretary announced the Annual Conference conducted by the American Medical Association, to be held in Chicago some time in February. Upon motion of Neafie-Boys, President Robb, Chairman Corbus, and Dr. W. H. Marshall were designated as the official representatives of the Michigan State Medical Society to attend this conference.

19. Upon motion of Neafie-McIntyre, the Council made the following ruling in regard to the expenses of our delegates to the American Medical Association: The expenses of Delegates to be limited to \$8.00

per day while in actual attendance at the meetings of the House of Delegates of the American Medical Association, plus railroad fare and pullman.

20. The Secretary presented the list of guests nominated by the scientific sections. Upon motion of McIntyre-Brunk, this list was approved and each section given authority to invite one invited guest for their section sessions.

21. Upon motion of McIntyre-Powers, the Chairman of the Council, the President of the Society, and the President-elect were authorized to formulate a list of members to be submitted to the Governor for appointment on the Board of Registration in Medicine in compliance with the Medical Practice Act.

ELECTIONS

22. Upon nomination of Councilor Neafie, supported by several, Dr. F. C. Warnshuis was re-elected secretary for the ensuing year.

Upon nomination of Councilor Van Leuven, supported by several, Wm. A. Hyland was elected treasurer for the ensuing year.

Upon nomination of Councilor McIntyre, supported by several, J. H. Dempster was re-elected editor for the ensuing year.

Upon nomination of Councilor Cook, supported by several, the present Medico-Legal Committee was re-elected for the ensuing year.

23. The Council then devoted considerable time to the discussion of legislative matters. Upon motion of Councilors Cook-McIntyre, the resolutions introduced into the House of Delegates relative to amendments of certain acts dealing with crippled children was referred to the Legislative Committee with instructions that they exercise their judgment and best endeavors to securing the enactment of the proposed amendment.

24. Upon motion of Boys-Burke, the Secretary was authorized to call a conference of county secretaries at such time and place as his judgment, and approval by the Executive Committee, determined.

25. President Robb presented several general matters, and also requested an expression as to the attitude to be taken by the profession to hospitals that instituted diagnostic clinics for pay cases. After discus-

sion it was decided no expression be recorded until after the Council on Medical Education and Hospitals of the American Medical Association imparts its attitude during the Annual Conference to be held in Chicago in February.

26. There being no further business the Council adjourned at 5:15 P. M.

F. C. WARNSHUIS,
Secretary.

GENERAL NEWS AND ANNOUNCEMENTS

The American College of Physicians will convene in Montreal, February 6 to 10.

Dr. R. H. Baker of Pontiac is the new editor of the Bulletin of the Oakland County Medical Society.

Mrs. Catherine T. Hawken, mother of Dr. William C. Hawken of Detroit, died on December 11, 1932.

The infant son of Dr. Hayden Palmer of Detroit died on January 7, 1933, from the effect of a peanut which lodged in a bronchus.

The Annual A. M. A. Conference on Medical Education, Licensure and Hospitals will be held in the Palmer Hotel, Chicago, February 13 and 14.

The Muskegon County Medical Society gave a dinner on January 25, 1933, honoring President-Elect George L. LeFevre, who assumes the State presidency this year.

Dr. F. C. Warnshuis was an invited speaker on the program of the annual meeting of the Missouri Pacific Railroad surgeons held in Kansas City, January 26 and 27, 1933.

Section officers met in Detroit January 11, and completed details for the Scientific program for the annual meeting to be held in Grand Rapids, September 12, 13, and 14, 1933.

Dr. L. H. Newburgh of the University of Michigan Medical School addressed the Genesee County Medical Society January 11, 1933, on the subject The Relation of Weight to Disease.

Dr. J. M. Robb, President of the Michigan State Medical Society, addressed the Annual Secretaries Conference of the Indiana State Medical Society at Indianapolis, January 22, 1933. His subject was "What Should be the Attitude of the Physician Towards Health Insurance Plans."

Suit was filed against a prominent member of the Michigan State Medical Society for half a million dollars, the plaintiff claiming that in a hernia operation he suffered exposure and embarrassment. The case was settled by the chairman of the medical defense and the insurance company without coming to court, for \$50.00, which speaks well for the efficiency

of the executive board of medical defense of the Michigan State Medical Society. One ten thousandth of the alleged damages was awarded the plaintiff.

A special meeting of the Luce County Medical Society was held on the evening of December 30, 1932, at the home of Dr. F. P. Bohn, with Dr. and Mrs. Bohn as hosts.

The object of the meeting was purely social as a farewell gathering for Dr. H. E. Perry, who was elected to the State Legislature and will leave us shortly to attend the coming Legislative session. As a token of appreciation for his untiring efforts in behalf of the welfare of our Society, and the medical profession in general, he was presented with a leather brief case. Dr. Perry has practiced in Luce County for the past thirty years, during which time he has unselfishly devoted himself to the sick and needy and upheld the true ideals of the profession and is honored and loved by all that know him. This is his initial entrance into state politics and we want every one to know that the medical profession has a "real" friend in Lansing.

GEORGE F. SWANSON, *Secretary*.

MAJORITY VS. MINORITY REPORT DISCUSSED

On January 20, 1933, Professor John Sundwall of Ann Arbor and Dr. Harry W. Plaggemeyer, of Detroit presented a joint discussion on the "Report of the Committee on the Costs of Medical Care" before the staff of Grace Hospital, Detroit. This was an open meeting and a number of laymen interested in general social economics were present. The large lecture hall at Grace Hospital was crowded, which shows the tremendous interest in this report by everyone who has followed this subject. The presentation of the report as a whole, with special emphasis laid upon the majority report, was made by Professor Sundwall of Ann Arbor. His presentation was complete from every angle; he deplored the fact that there had to be more than one report. He felt that had there been further time for study, there would have been only one report and the general tenor of his talk was toward group planning and group purchase of medicine, with all due regard for the position of the general practitioner.

Dr. Harry W. Plaggemeyer, Past President of the Wayne County Medical Society, analyzed the minority report in a discussion of the difference between collectivism and individualism in medicine. He stressed the feeling that the American people had a tendency to "soak" somebody and some class and that they would vote for anything once and then spend the rest of their lives "yelping" to have it repealed, after they had observed the results of their error. This he said would be the case if we allowed industrialism and politics to enter the realm of medicine and he closed with the prediction that, "the sick and sensitive patient loves his doctor because of the personality he puts into his individual relationship and you cannot ever standardize personality. So long as our social order is based on the family unit and around the family life, so long will you find the fire burning before the homely shrine of the family doctor."

Both speakers agreed there was unanimity in the two reports in regard to strengthening of public health services, the chapter on Basic Educational Improvement, and the fact that the family doctor should be restored to the central place in medical practice.

The discussion which followed was led by Dr. Charles Kennedy and Mr. John Lovett, Secretary of the Manufacturers Association. Mr. Lovett

talked on the situation in England and Russia, which he has observed, and the burden of his discussion was "God help the public if their type of system is tried here, on medical practice." Other discussers were Dr. W. LeRoy Hull, Dr. Milton Darling, and Professor Berghman of Central High School, who was introduced as representing the Socialist Group. Also, Dr. Thomas from Hamburg third Ortho-Krankenhaus gave the situation in Germany and presented a bitter outlook based on the status of his medical friends in Hamburg who are, according to him, strangled by the system of insurance which obtains throughout Germany.

THE LINEUP AT LANSING

The fifty-seventh Legislature of Michigan opened its sessions on Wednesday, January 4, with complete harmony in the ranks of the Democrats. The Senate has seventeen Democrats and fifteen Republicans and is headed by Lieutenant Governor Allan E. Stebbins of Ionia (D); Senator Leon D. Case of Watervliet (D) was elected President pro tempore. The House of Representatives, composed of fifty-five Democrats and forty-five Republicans, unanimously chose Martin R. Bradley of Hermansville (D) as its speaker; Tracey W. Southworth of Monroe (D) was selected as Speaker pro tem.

Five physicians and two osteopaths are members of the 1933 Legislature. The Doctors of Medicine include Senator James T. Upjohn of Kalamazoo (R); Representative Henry E. Perry of Newberry (R); Representative Duncan A. Cameron, Alpena (D); Representative John G. Rulison, Lansing (D); and Representative Edward F. Fisher, Dearborn (R). The osteopaths are: Senator Claude B. Root, Greenville (D), and Representative Lester T. Barber, Edmore (D).

The Senate Committees were announced on the opening day of the session. The Public Health Committee is composed of: Charles B. Asselin, Bay City (D), railroad worker; James A. Murphy, Detroit (D), lawyer; Claude B. Root, Greenville (D), osteopath; Dr. James T. Upjohn, Kalamazoo (R), physician, and Gordon F. Van Enenaan, Muskegon (R), lawyer.

Ninety-five bills were introduced in the House at its opening session. These were drafted by the Legislative Commission studying government costs and if adopted will save the taxpayers approximately \$5,000,000.00. They do not seem to affect the medical profession directly except in the elimination of the Crippled Children's Commission upon which several physicians are serving without pay.

Governor Comstock's message included: "This Legislature will be deluged with a flood of requests for legislation purporting to cure each and every one of the ills we are suffering." It is anticipated that 1,500 bills will be introduced, every one of which will be printed this session, which is a departure from former rules. The last session of the Legislature had a few more than 1,000 bills presented to it. About 125 to 150 bills will be of especial interest to the medical profession and must receive careful study, serious consideration, and appropriate action.—Condensed from the *Bulletin of the Wayne County Medical Society*.

"Books are the open avenues down which, like kings coming to be crowned, great ideas and inspirations move to the abbey of man's soul. There are some people still left who understand perfectly what Fenelon meant when he said: 'If the crowns of all the kingdoms of empire were laid down at my feet, in exchange for my books and my love for reading, I would spurn them all.'"

—ERNEST DRESSSEL NORTH.

SOCIETY ACTIVITY

INGHAM COUNTY MEDICAL SOCIETY SCOOPS THE STATE

PAID ON DECEMBER 20, 1932—82 MEMBERS.

On December 20, the regular meeting of the Ingham County Medical Society was held in the Guild Hall, Lansing. Seventy-two members were present. Your state secretary was present and participated in the evening program, which was devoted to a discussion of medical economics, led by Doctors John Wetzel and L. J. Christian.

Previous to the program, the members sat down to an Assyrian dinner prepared by Assyrians of Lansing. It was a good dinner. Incidentally, Ingham members are carrying out a plan of cultivating and securing the good will of local residents representing varied nationalities. Each society meeting is a dinner meeting. The dinner is characteristic of the nationality that serves it—German, Swedish, Jewish, Italian, Mexican, etc. During the dinner some member briefly sketches some historical facts of the nation or race whose food is being eaten. This plan fosters the goodwill of these people for the medical profession. A most commendable activity that may well be initiated in other counties.

Following the dinner, the treasurer, Dr. T. I. Bauer, arose and announced that the society had too much money in the bank. The members expressed a desire to spend it. Thereupon the treasurer handed your state secretary a check for \$717.50 in payment of *1933 state dues for all of the society members*. This surely was a scoop and beating other counties to it. This scoop was made possible by reason of the fact that the society is working under a contract with the city for taking care of the indigents. It was demonstrated anew that unity of action achieves and yields profits. Our hat is off to Ingham men who are exemplifying a splendid spirit of organizational activity and mutual helpfulness.

The six-page Bulletin of the Ingham society may well be copied by other counties. Under the editorship of Dr. H. L. French, secretary, and Dr. T. I. Bauer, treasurer, it is a splendid publication, filled with interesting, inspiring copy.

And here is another worthy activity. In

January, the society sponsored a public meeting, addressed by the National Secretary of the Economy League. Legislators and state officials were invited guests. It is such work that enhances organizational prestige and establishes community influence. It is activity like this that causes a society to accept its full responsibilities. Similar opportunities exist in every county.

So, under the presidency of Dr. W. E. McNamara, sustained by a one hundred per cent support of his members, Ingham County walks away with the 1933 banner and is on its way for a successful year. Congratulations, members of Ingham.

STEWARDSHIP

This issue contains the minutes of the January session of the Council. The reports rendered and the action recorded reflect the stewardship responsibility of the Council. Read them to become informed as to organizational activity directed in your behalf.

SOCIAL MOVEMENTS*

B. R. CORBUS

Mr. President and Members of the Kent County Medical Society:

Economic pressure, as it affects the medical profession, increases. The prolonged period of depression brings forth ill considered panaceas from both within and without the profession, whose objective is the cure of social ills long recognized but now become acute. The attitude of various lay bodies and some members of the profession seems to be that of the old adage—"When the case can be no worse the desperate is the wisest course." No longer content to proceed along evolutionary lines, the tendency seems to be to kick over the traditions of medicine, the professional set-up which has shown a degree of success equal to or beyond that of any social body, and start out on experiments which are definitely of a socialistic type. Interestingly enough, some of the proposed schemes have been tried out in Europe and have been shown to be inadequate from the public standpoint, unfair to the physician and tremendously costly to the state.

Your councilor has deemed it wise, in this communication, to consider with you

*Councilor's Address to Kent County Medical Society, December 14, 1932.

very briefly this seriously threatening situation. You will, of course, want to read carefully the report of the committee on the Cost of Medical Care, and you should read equally carefully the report of the Commission on Medical Education, whose report just issued is the result of seven years' work of a committee of educators headed by President Lowell of Harvard. Their conclusions, you will note, are almost diametrically opposed to the majority report of the first committee. In this discussion I shall make free use of some of their conclusions and wording.

First, let it be said that the medical profession will favor any reasonable plan which will make a high quality of medical care more generally available. We are fully conscious of the unequal distribution of such care and we fully realize that the present-day application of our knowledge of diagnosis, treatment and prevention of disease lags sadly behind the needs.

Let it not be said, however, that the medical profession has stood calmly by and made no attempt to meet this problem. The Michigan State Medical Association, in connection with the University of Michigan and other allied organizations, has, for many years, through public forum, newspapers, and more recently by radio, brought knowledge of the newer things in medicine, instruction in the prevention of disease and advice on hygiene, to hundreds of thousands of our citizens. The number of individuals contacted through public forum alone has averaged upwards of two hundred thousand a year. Thousands of dollars have been expended by your society in the effort to raise the standard of medicine, and especially in the rural communities, by bringing post-graduate instruction to the door of the doctor.

The State Society works with the Couzens Foundation, the Kellogg Foundation, the Crippled Children's Commission and the University of Michigan, in a united effort to distribute modern medical services to that part of the population which otherwise would be deprived of such service.

We have been willing, as a society, to expend no inconsiderable amount of money for a study of these problems. A few years ago a study was made of the hospital situation in the state. In the past year or two, as you very well know, your society has been, through its special committee on Survey of

Health Agencies, busily engaged in compiling data and studying the situation. We have expended, during the past year, approximately five thousand dollars in this study, and now are about ready to make the report. The report of the Public Relations Committee of this Kent County Medical Society is a most outstanding contribution to the subject. Not only is it recognized as being an interesting and valuable contribution, but it has caused other counties in other states to institute similar surveys. We want to know the situation. We would have this problem solved in a sane way. We are certain that there is no panacea for this emergency, and that there is no solution of the problem which will fit the country as a whole. This is essentially a local problem, with great local variations, which is to be solved properly only after a study of properly compiled local data. We object to precipitous revolutionary action. "There is some danger that public thinking has been maneuvered into an unfortunate position recently in regard to this whole matter, for emphasis is being placed upon the cost of medical care, rather than upon the support of an adequate medical service of high quality," and this medical care is too often interpreted as physicians' fees.

The doctors, as a class, profit relatively little as compared with the total cost of medical care. Hardly a third of the expenditure accrues to him. The mean income of the doctor, considering the money he has expended for education, the responsibility he carries and the hardships of his life, is astonishingly low. Fifty per cent of doctors have a net income of under three thousand dollars a year. Even in the days before the depression the economic problem of the average physician was becoming increasingly precarious by reason of the growth of governmental, state and community programs in competition with him. In these days of depression the situation has developed in seriousness, how serious only those of us in the profession can realize. The older men among us have seen the successful program of preventive medicine result in a tremendous improvement in the health of the children and an equally great decrease in the number of contagious diseases, until today, and it will be increasingly so, medicine is more and more limited to the care of the diseases of adults and old age.

We are as appreciative as any layman,

that medical care costs too much, but we are not unconscious of the fact that large fortunes have been made by individuals whose profits came to them through the efforts of their employees. In the days of prosperity these profits were not reflected in the worker's wage to any proportionate degree. Now, in this period of unemployment, employers and workers alike look to the doctor to carry the burden of sickness and to the state and the city to carry the burden of feeding and housing. Even in the best of times there was little margin left for medical care for these individuals. How could there be when, in good times, the average wage for workers lay between twelve hundred and thirteen hundred dollars per year?

We are most anxious that some plan be developed which will help to solve the problem, some plan which will take the load of forced charity from the shoulders of the physician; some plan which will make it possible for the small wage earner to pay his own way.

However, we must oppose any plan which shall be imposed upon us, which will lessen the responsibility of the physician in the care and treatment of the sick, or denies him the rewards of special ability and character.

We must guard ourselves against plans hurriedly conceived, unsafeguarded, tending toward commercialism and a breaking down in ethics and the accepted standards of medical practice. The quality of service rendered, and not the quantity, must be at the heart of any well conceived program. As a profession we are apprehensive that any attempt to interfere with the individual service of the physician to his individual patient will lower the quality of that service, and will react, ultimately, to the disadvantage of the patient.

If there was ever a time when the solidarity of the profession was necessary, it is now. The profession must maintain a unified front, and look to its leaders for guidance, else the result will be a sort of an Americanized medical Sovietism.

I predict that the majority report of the Committee on the Cost of Medical Care will stimulate all sorts of commercial schemes whereby the present exigencies of the doctor will be capitalized to the benefit of the promoters. Certain charitable institutions will find, in this report, encouragement to

some plan which will enable them to cut down their overhead at the doctor's expense. We would not block any plan which will make possible better care for the poorly paid individual. Accustomed to giving charity, we have no desire to evade an obligation accepted as one of the tenets of our profession, but the medical profession will desire to have a voice in the distribution of its charity and a voice in the formulation of any plan for the care of the sick which affects, in a vital manner, the conduct of their profession.

This is a time to make haste slowly and a time to be on guard against illogical panaceas, commercialized plans such as corporate contracts, ill advised insurance groups, or what not, which might well result in a disintegration of our professional body. We set our teeth and forge ahead with the ambition to give honest service, to live up to the ethics of our profession, and hope that the doctor, in joint action with the economist and the social student, may work out a plan whereby a good quality of medical service may be available to every one, while at the same time the doctor's interest is conserved. It will be to the interest of public welfare as well as to his own interest, if a way is found for the doctor to continue to lead a truly independent life, with sufficient income to make it possible for him to give the best that medicine has to offer to his patients, and to make life for him reasonably happy and satisfactory.

SPECIAL MEETING OF THE HOUSE OF DELEGATES

The minutes of the mid-winter session of the Council are contained in this issue. Reference is made to a special meeting of the House of Delegates. The Council following consultation with the Chairman of the Survey Committee empowered the Executive Committee to designate the date for the special meeting.

The Committee advises that it will be absolutely impossible to complete its report before March 15. Therefore the special meeting will be held sometime between March 15 and 31.

Beginning late in February the Committee will commence sending to delegates summarizations and findings. Delegates will thus be accorded opportunity to familiarize

themselves with the Committee's findings and thus informed they will be able to consider the Committee's final report with better understanding.

Official notices will appear in the March issue.

POST-GRADUATE OPPORTUNITIES

Every doctor should plan to spend some time in post-graduate work each year. He owes it to himself and to his patients. Scientific progress is ever forward. To remain abreast one needs to read, study and see. Your State Society in coöperation with the University Medical Department provides such opportunities. You are urged to embrace them.

This spring the following opportunities have been arranged for all our members:

THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL and THE MICHIGAN STATE MEDICAL SOCIETY

Intensive Courses for 1933

Pulmonary Tuberculosis—March 20-24.
Diseases of Metabolism—March 27-31.
Diseases of the Heart—April 3-7.
Ophthalmology and Otolaryngology—April 24-29.
Proctology—May 15-27.
Practitioners' Course—June 19-July 1.
Gynecology and Obstetrics—June 19-July 1.
Roentgenology—June 26-Aug. 4.
Serology and Clinical Microscopy—Throughout the year.

Physical Therapy—Throughout the year.

Registration limited. Nominal fees. For further information address: Director, Department of Post-Graduate Medicine, University Hospital, Ann Arbor, Michigan.

Write to the Director and arrange to take some of these courses. We are certain you will be pleased with the benefit that will accrue.

COMMENTS

The minutes of the January Council session are contained in this issue. All members are urged to read them.

There are several new advertisements appearing in this issue. Patronize all of our advertisers. Give them preference in your business dealings. Ask detail men if their firms advertised in your Journal and withhold patronage unless they do.

Dues are payable. Send your remittances

to your County Secretary. Please be prompt.

Muskegon County is the second 100 per cent society. Dues for all of its members for 1933 were received on January 8.

It is reported that there is a good opening in Ontonagon for a general practitioner.

BATTLE CREEK PLAN

You asked me to give you an outline of the plan the Doctors have initiated in Battle Creek for taking care of the medical needs of the indigent people.

The doctors have formed an incorporate body known as the Battle Creek Academy of Medicine and Dentistry—non-profit sharing. This body has contracted with the City Commission to render all ordinary medical and surgical care through its organization for a flat price of \$1,000 per month, out of which we pay our own expenses of administration and provide our own investigator. The strong points about our organization are the investigating committee and the auditing committee. All hospitalization and unusual expenses such as drugs, appliances, etc., are paid for by the City. This contract is in force for one year. The largest township population, outside the City, has also taken a similar contract with us, the money being much less, of course. We feel that we will accomplish two things: First, Take the practice of medicine out of the hands of lay dictators and return it to the doctors' offices. Second, We feel that the family doctor is most capable of preventing temporary financial embarrassment from turning into the state of chronic pauperism. The dentists are not included in our \$1,000 per month contract, but have their own funds to the extent of \$900 per year, the Academy being only concerned in the investigating department of the activity. We have been running only five days and are learning much, but are not sick of our job so far. I shall be pleased to give you an accurate synopsis of this set-up for the JOURNAL if you feel that it would be desirable. Jackson County is already acting on some of our plans.

Sincerely yours,

C. S. GORSLINE, M.D.

INCIDENCE AND VARIETY OF HEART DISEASE IN SCHOOL CHILDREN OF SAN FRANCISCO

According to Ina M. Richter, San Francisco, congenital heart lesions are not uncommon, and they give rise to symptoms and physical disability, though to a far less degree than do rheumatic endocardial and myocardial lesions. The valvulitis characteristic of the rheumatic syndrome is not uncommon in a mild climate like that of San Francisco, but its manifestations are much less dramatic and its inception is far more insidious. Scarlet fever and diphtheria are apparently factors in the causation of organic cardiac disease, and the type of lesion found in these cases suggests the myocardial lesions of later life. A children's health center furnishes an opportunity for the study of the causation of functional murmurs.—*Journal A. M. A.*

COUNTY SOCIETIES

ALPENA COUNTY

At the annual meeting of the Alpena County Medical Society, held on December 15, 1932, the following officers, all of Alpena, were elected for the year 1933: Dr. L. F. Secrist, president; Dr. F. J. O'Donnell, vice president; Dr. W. B. Newton, secretary-treasurer; Dr. E. L. Foley, delegate; Dr. H. J. Burkholder, alternate delegate; Dr. E. L. Foley, legal representative.

The society went on record as in favor of the Minority Report of the Committee on the Cost of Medical Care.

Three new members were elected as follows: Dr. E. L. Parmenter and N. C. Larsen, Alpena, and Dr. R. B. Howard, Rogers City.

W. B. NEWTON, M.D., *Secretary*.

BAY COUNTY

Wednesday evening, December 14, 1932, retiring President Slattery, according to local custom, tendered the members of the Bay County Medical Society and guests a banquet at the Wenonah Hotel.

Following the banquet, the annual meeting, one of the largest in the history of the Society, was held. The following guests were present: Dr. Julius Powers, Saginaw, Councilor, 8th district; Dr. Claude Keyport, Grayling, member State Board of Medical Registration; Dr. C. C. Clippert, Grayling; Dr. Fred Baker, Pontiac; Dr. Arthur Murtha, Pontiac; Dr. G. M. McDowell, Howell Sanitarium, Howell; and Dr. J. McIndoe, Howell Sanitarium, Howell.

Dr. Slattery read, as the President's address, a paper dealing with many current medical problems, including Veterans' Relief, Health Insurance, and Indigent County Relief.

Following the meeting, Dr. Slattery held "open house," at his residence on North Lincoln Avenue.

The following were elected to office for the coming year: President, Dr. E. S. Huckins; vice-president, Dr. J. H. McEwan; secretary-treasurer, Dr. L. Fernald Foster; censor, Dr. A. W. Herrick; medico-legal councilor, Dr. A. W. Herrick; permanent delegate, Dr. L. Fernald Foster; alternate delegate, Dr. A. D. Allen.

The Society has under consideration changing the name of vice president to president-elect and the establishment of an executive committee.

Before adjourning, President Slattery showed a number of reels of motion pictures, which he has been accumulating for several years. They are personal flashes of practically every member of the Society.

The members listened to the annual reports of all officers and committees, after which the meeting was adjourned.

L. FERNALD FOSTER, M.D.,
Secretary.

CHIPPEWA COUNTY

New officers of the Chippewa County Medical Society elected at the last meeting are: President, Dr. F. J. Moloney; vice president, Dr. F. H. Husband; secretary-treasurer, Dr. W. F. Mertaugh.

The committee appointed so far is the advisory chart committee for the year, which consists of: Dr. C. Willison, Dr. S. H. Vegors, and Dr. F. C. Bandy.

Dr. Lyle F. Schmaus has been admitted as a mem-

ber to the Chippewa County Medical Society. Dr. Schmaus is a graduate of the State University of Iowa.

W. F. MERTAUGH, M.D., *Secretary*.

DICKINSON-IRON COUNTY

The annual meeting of the Dickinson-Iron County Medical Society was held at the Millman Hotel, Iron Mountain, Mich., Tuesday evening, December 13, 1932.

Dr. W. H. Huron, of the medical staff of the Ford Motor Company, exhibited a patient recovering from tularemia and then read a paper on that disease. Later a lively discussion followed relative to petitioning the County Board of Supervisors in regard to a more satisfactory method of handling the county indigent cases.

Following the program the following officers were elected for 1933: President, Dr. George Boyce, Iron Mountain; vice president, Dr. W. J. Kofmehl, Stambaugh; secretary and treasurer, Dr. Charles P. Drury, Iron Mountain; chairman of the public relations committee, Dr. W. H. Huron, Iron Mountain.

CHARLES P. DRURY, *Secretary*.

GRATIOT-ISABELLA-CLARE COUNTY

The January meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, January 12. Eighteen members and five visitors had dinner together.

In the absence of President Carney, Vice-President Hobbs called the meeting to order. The minutes of the previous meeting were read and approved. The applications of Thos. E. Gibson and Philip R. Johnson of Mt. Pleasant and Bernard J. Graham of Alma for membership in this Society were read, they having previously been referred to the Board of Censors, and each was recommended by them for membership. Each name was voted on separately. All were declared members of this Society.

Doctor Hobbs then called on Dr. B. J. Graham to introduce his friend, Dr. George Curry of Flint, who talked and showed slides of injuries in and around the knee joint. The Doctor's pictures of different fractures and injuries to the knee were very good. His explanations and description of the methods of caring for these injuries were easily understood and very instructive.

Doctor Hobbs introduced Mr. M. M. Ricketts of the Petrolagar Laboratories, who showed two moving-talking pictures of operations of repair of the parturient canal.

The meeting adjourned.

E. M. HIGHFIELD, M.D., *Secretary*.

GRAND TRAVERSE-LEELANAU COUNTY

The Grand Traverse-Leelanau County Medical Society held ten meetings during the year of 1932. During the year the Society gained two members, bringing our membership roll to twenty-eight. The average attendance per meeting was sixteen.

The program committee, headed by Dr. E. B. Minor of Traverse City, has been very active and succeeded in making each meeting interesting. Of course this committee encountered the usual difficulty in trying to get our local members to work hard enough to present a paper. Case history discussion with all members participating, appears to

be the most acceptable and stimulating program for regular meetings.

The outstanding meetings of the year were the January 5th, during which Mr. Moore of the General Electric Company demonstrated artificial fever therapy, Dr. Meness of Grand Rapids showed a series of X-Ray films on gastro-intestinal lesions, and Dr. Merrill Wells of Grand Rapids talked on the "Etiology and Treatment of Peptic Ulcer"; the August picnic meeting at Dr. Kyselka's Long Lake cottage at which Dr. Louis J. Hirschman of Detroit gave an outdoor lantern slide talk on "Carcinoma of the Rectum and the Selection of the Umbilicus as a Site for Colostomy," and Dr. Isaac A. Abt of Chicago held a round table discussion on some phases of Pediatric Practice.

At our annual meeting, December 6, 1932, when the members were the guests of our retiring president, Dr. G. A. Holliday, as guest of honor, Dr. George L. LeFevre, President-Elect of the Michigan State Medical Society, gave a very comprehensive talk on "Medical Economics" from the standpoint of the county society, referring particularly to indigent care. He also stressed the great increase in malpractice suits and the necessity of each member protecting his fellow practitioner.

The following officers were elected for 1933: President, Dr. T. W. Thompson; vice president, Dr. M. J. Holdsworth; medico-legal advisor, Dr. F. G. Swartz; secretary-treasurer, Dr. E. F. Sladek.

E. F. SLADEK, *Secretary.*

INGHAM COUNTY

The regular monthly meeting of the Medical Society of Ingham County was held December 20th at the Episcopal Guild Hall in Lansing. Dinner was served at 6:30 and 70 members and guests were present. Guests included Drs. Hargrave, Sheets, Stimson and Bradley of Eaton Rapids; Dr. McCoy of Grand Lodge; Dr. Hart of St. Johns; and Drs. Farnham and Ekelund of Pontiac.

Following a few remarks from President Wm. E. McNamara, the regular business meeting was called to order. Minutes of the last meeting, as published in the Bulletin, were approved.

Dr. T. I. Bauer gave a treasurer's report. It was moved by Dr. Bauer, seconded by Dr. Shaw, that the treasurer be instructed to write a check for the 1933 dues of all members in good standing at this time. Motion carried. Dr. Bauer then presented a check to Dr. F. C. Warnshuis, secretary of the Michigan State Medical Society, for the dues for 1933 of all members in good standing.

The application of Dr. John H. Albers of East Lansing for Associate membership was presented. It was moved by Dr. McIntyre, seconded by Dr. De Vries, that the application be accepted. Motion carried.

Dr. John Wetzel then gave a very detailed summary of the Majority Report on the Cost of Medical Care. This was followed by a summary of the Minority Committee Report by Dr. L. G. Christian.

Dr. F. C. Warnshuis of Grand Rapids, Secretary of the Michigan State Medical Society, gave the principal address of the evening, speaking on "Organizational Activities." Dr. Warnshuis stated that whether medical organization in Michigan will continue to meet its responsibilities and duplicate its success of the past in safeguarding scientific medicine, preserving the present standards of medical practice, and promoting the best interests of the individual physician depends on the other factors in successful organization, namely—

1. The active, united and enthusiastic interest of

every member in the activities and program of medical organization, and:

2. The enlistment of every eligible physician in the cause of organized medicine. We must deal collectively with the exploitation of medicine. The safety of the public in matters of life and health rests upon the initiative of our profession. The preservation of all that is best in the tradition of our profession, of all that has been produced in the development of the science of medicine can be accomplished only in a closed union of our individual interests.

It must not be forgotten that medical organization has been, and will continue to be, the most powerful influence in the protection and maintenance of the personal interests of the individual physician. The fact should not be lost sight of that medical organization has consistently demanded that the economic security of the individual practitioner be insured along with the welfare of the public at large in any new form of medical practice which may be evolved. Medical organization has not overlooked the fact that the personal, human element in medicine predominates.

After all, medical practice is secondary to, and dependent upon, the progress of the medical profession. Solution of the problems of the profession is the means to an end. Let the profession fail and medical practice fails also. Medical practice does not stand alone and for that reason cannot endure unmolested without the protection of the medical profession. Medical practice is merely a child of the medical profession and without proper organization becomes an orphan.

Through the maintenance of strong medical organization, the medical profession will have reasonable assurance that its economic security will be protected and safeguarded, and therefore that it will be permitted to keep pace with the advancement of scientific medicine. Under such conditions, sound medical practice can be carried on and competent medical care provided.

Much depends on how the medical profession acts to meet the present crisis. Only by united action can it hope to weather the storm and preserve those proven principles which it knows to be best for the public and for its own members.

The machinery has been created and is operated efficiently and is intact. Leadership of the highest type is provided. Expression of effort alone, on the part of every member, limits, or enhances our end-results. You as an individual member are the important factor. Without your united support the efforts of your officers, your Council and your committees are limited. The need of the day is an awakened, aggressive, sustaining membership.

Dr. Warnshuis, in discussing the report on the Cost of Medical Care, stated that it was his impression, as well as that of the country at large, that this report is the essence of folly. There is no panacea that can be advanced to solve the problems of the medical profession, as problems in one community differ from those in other communities. The real answer, in his opinion, is the awakening of each individual physician in each county society. He recommended that this medical society pass resolutions endorsing the Minority Report, sending it to Dr. Olin West of Chicago.

Dr. McCrumb, in the absence of Dr. Arnold Strauss, read his paper on "State Sick Insurance in Germany." The history of State Sick Insurance in

Germany dates back to the time of Bismarck in 1878. Changes were made following the World War so that now it is purely State Medicine, organized for and by the Socialistic Party. 95% of the population are now covered by this insurance. The advantages to the public are larger scale medical attention for many who would otherwise receive none, the direct result of which is the prevention of many infections, a low infant mortality, a fair degree of preventive medicine and some eugenic measures. The disadvantages are the extremely high costs, as every workman is compelled to pay 10% of his wages for this sick insurance. A more insidious fault is the destruction of individual initiative, for once they become ill they do not care to become well as they are being paid to be sick.

The physician received ten cents for an office call and less than thirty cents for a house call. One physician cares for about 600 members of the Socialistic party, or approximately 2,000 people. Because of this, only about one-half of the doctors are earning the minimum of money, even though the income of the medical profession was reduced to approximately nothing after the War. Some doctors who are fortunate to be located in poor districts where every member has from four to six children, have about 4,000 clients, which means seeing about 100 patients a day. A doctor who is so fortunate is called an "Insurance Lion"; he need not worry about his pay, and his patients cannot change to another physician. At the present time only about 3% of all physicians are so happily situated. There are now about 5,000 physicians admitted by the Insurance Companies, and all must remain on the waiting list for a period of three years. Those applying next year must wait five years, and those who apply in 1934 will wait ten years.

The insurance companies have suggested that the way out of this tangle is by employing all physicians who so desire, and allowing them to compete among themselves. This they can easily afford to do since only about 20% of the money they receive is turned over to the doctors. The leading physicians in this field all realize that the entire insurance system is on the verge of a complete collapse. It is too expensive for a poor country; is demoralizing the masses; and is ruining the doctors and the medical art. In short, it is socialistic, and not social.

The best way out seems to be in transferring the insurance companies into private hands, probably trade unions. At any rate they must be taken away from the State. The new Government, which is not socialistic, is realizing these trends and is striving to obtain work for everyone, and restrict the avalanche of medical students.

We American physicians should be very slow and extremely careful in accepting a program of State Medicine.

Drs. Ekelund and Farnham of Pontiac spoke briefly. Dr. Farnham suggested, inasmuch as we do not have facilities to keep committees active and our interests adequately preserved, that several County societies, geographically located, hire a paid secretary to hold the societies more intact and keep better informed, etc.

The discussion was continued by Dr. Milton Shaw. It was moved by Dr. Breakey, seconded by Dr. McIntyre, that a committee be appointed to draw up resolutions endorsing the Minority Committee Report on the Cost of Medical Care, to be sent to Dr. Olin West of Chicago. Motion carried.

Dr. F. C. Warnshuis closed the discussion. In doing so, he stated that physical and mental health were the most fundamental of all factors for the welfare of the public; and that the medical practice

of the future is the care of the middle and old age—of the degenerative diseases.

The meeting adjourned.

RUSSELL L. FINCH,
Secretary.

JACKSON COUNTY

The business meeting of the Jackson County Medical Society was held Tuesday afternoon, December 20, 1932, at Foote Hospital. The proposed amendment to the Constitution to eliminate the office of vice president and substitute the office of president-elect was carried after some discussion.

It was moved by Dr. Alter and seconded by Dr. Riley that the president-elect be nominated and elected by ballot and that his duties be defined as follows: The president-elect shall assist the president in the performance of his duties, shall preside in his absence and upon his death, resignation or removal from the county shall succeed to the presidency. He shall also attend the Board of Directors meetings and committee meetings, familiarizing himself with the problems confronting the Society. The motion carried.

Officers for 1933 were then elected as follows: Dr. W. L. Finton, president; Dr. Clyde Leonard, president-elect; Dr. R. H. Alter, secretary; Dr. F. G. Ransom, treasurer; Drs. DeMay, Cox, and Smith, directors; Drs. Riley and O'Meara, delegates; Drs. Clarke and Brown, alternate delegates.

A general discussion followed concerning the work of the Secretary. It was pointed out that the work of this office had greatly increased during the last few years. It was the consensus of opinion that the work done by the Secretary should be divided among other members, some believing the Secretary should receive compensation for his services. Doctor Smith moved that the incoming officers take some steps to lessen the work now falling on the secretary. Motion carried.

The evening program was held at the Hayes Hotel, with a dinner dance. Following the dinner Santa Claus put in his appearance and distributed gifts to the ladies present. The Committee in charge was composed of Dr. Newton, Chairman, assisted by Drs. Schaeffer and Meads.

R. H. ALTER, *Secretary.*

KALAMAZOO COUNTY

The forty-ninth annual meeting was held in the Academy rooms on the afternoon of December 20, 1932, being called to order by the President, R. A. Morter.

The minutes of the preceding meeting were approved.

Drs. Jackson and L. H. Stewart moved that the Treasurer's report as printed in the Bulletin be accepted. Motion carried.

Dr. Bennett reporting for the Public Relations Committee reported that a survey of the county had been made as to the number of clinics, etc., at the request of the State Committee for the study of medical economics in Michigan. The questionnaire that had been sent to the physicians, however, received poor response and a plea was made for more active interest in public affairs so as to be able to cope with problems that are continually being presented.

Dr. F. T. Andrews, reporting as a delegate to the State Society, reported on the paucity of accomplishments of the House of Delegates at the recent convention but emphasized the success of the State Meeting and voiced his thanks for the coöperation of the members.

Dr. Boys announced that the Civic Improvement

League desires to inaugurate a pre-natal clinic and the city welfare department has included in their budget a fee of \$7.50 for the accoucheur on the case. He moved that three be appointed to confer with him and Dr. Lavan about the advisability, or not, of starting this clinic. No second. The matter was referred to the Committee on Public Relations.

Dr. Morter thanked the Program Committee of the past year for their prompt and efficient manner in arranging for programs.

Drs. F. T. Andrew and Aach moved that the report of the last executive committee meeting be accepted. Motion carried.

Drs. Wilbur and L. H. Stewart moved the adoption of the amendment to Chapter I, Section 3, of the By-Laws requiring an applicant to be in residence in the community for one year before acceptance as a member. Motion carried.

Drs. C. A. Alexander and James G. Malone were unanimously elected to membership.

Resolutions on the death of Dr. W. E. Upjohn were read by Dr. Caldwell and he and Dr. F. T. Andrews moved that they be spread on the minutes of the Academy and that a copy be sent to the family. Motion carried.

Balloting for election for President for the ensuing year resulted in the unanimous election of Dr. W. R. Vaughan.

Drs. Crum and den Bleyker moved that the Committee on Public Relations be made a permanent one and that such be appointed by the President. Motion carried.

Drs. Crum and Bennett moved that the Committees on Social Hygiene and Public Education be discontinued. Motion carried.

Drs. L. H. Stewart and Crum moved that the report of the nominating committee including the officers so listed in this Bulletin be accepted. Motion carried.

The new president, Dr. Vaughan, assumed the chair.

Past President Dr. Morter then delivered his ex-inaugural address.

LUCE COUNTY

The Luce County Medical Society held its November meeting, November 20, 1932, at the home of Dr. H. E. Perry, with Drs. Perry and Swanson as hosts. The ladies were present and everyone enjoyed a venison dinner. All members were present and we had as our guests Major and Mrs. Froitzhoim and Captain W. A. Murphy from Fort Brady, Michigan. Following the dinner the ladies spent the evening playing bridge.

The meeting was called to order by President Gibson and minutes of previous meeting were read and approved. Correspondence was read and discussed. There was no unfinished or new business and no committee reports.

Major Froitzhoim gave a splendid talk on "The Medical Regimen" and clearly outlined the formation and function of the unit. The Major's talk was greatly enjoyed and freely discussed by all present. The meeting adjourned.

The Luce County Medical Society held its December meeting at the home of Dr. George F. Swanson on December 20, 1932, at 8:30 P. M. with all members present.

The meeting was called to order by President Gibson and minutes of previous meeting were read and approved. Correspondence was read and discussed. The following officers were elected: President, C. B. Toms; Vice-President, R. E. Spinks; Secretary-Treasurer, George F. Swanson; Delegate to State

Convention, H. E. Perry with E. H. Campbell as alternate; Program committee, C. B. Toms and George F. Swanson.

Through the courtesy of Davis & Geck, Inc., four films on Ventral Hernia and Salpingo-Oophorectomy were shown. These films were very instructive and greatly enjoyed by all the members.

The meeting adjourned.

GEORGE F. SWANSON, *Secretary*.

MANISTEE COUNTY

At the annual meeting of the Manistee County Medical Society held December 15, 1932, the following officers were elected:

President, Dr. Ellery A. Oakes; vice president, Dr. Charles L. Grant; secretary-treasurer, Dr. Ernest C. Hansen; delegate, Dr. A. A. McKay; alternate, Dr. Stephen Fairbank.

E. C. HANSEN, *Secretary*.

MARQUETTE-ALGER COUNTY

The December meeting of the Marquette-Alger County Medical Society was held at Marquette, Michigan, December 12, 1932.

The committee appointed to confer with the County Poor Board advised that an agreement had been made whereby the regular fee of \$50.00 for major surgical cases in County patients would be reduced 20%. Furthermore that they refuse to make additional payment in cases in which long postoperative treatment is required and that they refuse to take any action upon maternity cases at this time.

A very instructive paper on the Tannic Acid Treatment of Burns was presented by Dr. Lloyd E. Hamlin of Norway, Michigan.

D. P. HORNBOKEN, *Secretary*.

MECOSTA COUNTY

The regular meeting of the Mecosta County Medical Society was held at the Western Hotel Tuesday evening, January 10, 1933. Hosts, Drs. MacIntyre and Peck.

Present: Drs. Campbell, Grieve, MacIntyre, Chess, Peck, Bunce, Yeo and Burkart; Dentists, Pryor, Miller, Shank and Rogers.

Dinner was served at 7:00 p. m.

The meeting was called to order by President Campbell at 7:45 p. m. No communications. Meeting turned over to Dr. G. H. Yeo, Chairman of the Program Committee, who reported that due to the illness of Dr. Vis, the expected speaker, a round-table talk would be indulged in, and all members present recited interesting experiences in the early years of their practice.

President Campbell announced the appointment of following committees:

Program—Drs. Chess, Yeo; Dentist Rogers.

Industrial Activities—Drs. Peck, Bunce, Kelsey.

Public Relations—Drs. Kelsey, Bruggema, Grieve, Franklin, Peck.

President Campbell suggested that the Program Committee arrange the program two months in advance.

On motion, a rising vote of thanks was given our hosts, Drs. MacIntyre and Peck.

JNO. L. BURKART, *Secretary-Treasurer*.

MUSKEGON COUNTY

The annual meeting of the Muskegon County Society was held Friday, December 16. New officers for the coming year are: President, Dr. R. J. Douglas; vice president, Dr. V. S. Laurin; secretary-treasurer, Dr. M. E. Stone; delegate to State Convention, Dr. F. W. Garber, Sr.; alternate delegate,

Dr. C. J. Bloom; medico-legal advisor, Dr. Geo. L. Le Fevre.

M. E. STONE, *Secretary*.

NORTHERN MICHIGAN

The December meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, Tuesday, December 20, 1932. There were twenty members present at dinner.

The meeting was called to order by the president. The secretary's report was read and approved. Correspondence on hand was read and acted upon. Reports of various committees were heard.

Motion was made and carried that our dues for 1933 be \$10.00, including both county and state.

Motion was made and carried that the councilor be requested to invite Udo J. Wile to give a clinic in April.

Dr. R. Miller of Harbor Springs was admitted to membership. Dr. Craddock of Mackinaw City made formal application for membership.

Drs. Chapman and McMillan were appointed to the program committee.

Drs. Vanleuven, Brenner and Mayne were appointed to draw up a constitution and set of by-laws.

Election of officers for 1933 then took place. The following officers were elected: President, Gilbert Frank, Harbor Springs; vice president, F. McMillan, Charlevoix; secretary and treasurer, Ervin J. Brenner, East Jordan; delegate, Fred. Mayne, Cheboygan; alternate, Guy Conkle, Boyne City.

The rest of the evening was spent in discussion of the various problems presented by the osteopaths, Couzens Fund, Michigan Tuberculosis Association and allied organizations.

The meeting was then adjourned.

The January, 1933, meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, on Thursday, Jan. 12, 1933, with an attendance of eighteen members and six guests.

Immediately after dinner the meeting was called to order by the new president, who gave a short talk on the aims and ambitions of the Society. The Secretary's report was read and approved. Correspondence from the State Society was read.

Motion was made and seconded that this Society go on record as approving the report of the minority of the Committee on Cost of Medical Care of the American Medical Association.

Drs. Chapman, Mast, and F. McMillan were appointed as a committee to draw up a resolution, to be sent to all state senators and representatives of the immediate vicinity, requesting them to institute legislation in regard to the Crippled Children's Law and the sending of cases to Ann Arbor that could be taken care of here.

Dr. Larson of Levering was appointed to the Program Committee. Dr. Howard of Rogers City then gave a brief talk outlining the activities of the Couzens Fund in Northeastern Michigan. This was followed by a general discussion.

Drs. Moffatt and Quinlan of Charlevoix then talked on the activities in their district. Mr. Neblung and several of the nurses also briefly spoke.

ERVIN J. BRENNER, *Secretary*.

OCEANA COUNTY

Officers of the Oceana County Medical Society elected for 1933 are: A. R. Hayton, Shelby, president; Norman Heysett, Hart, vice president; Fred A. Reetz, Shelby, secretary-treasurer; Norman Heysett, Hart, delegate; Wm. Heard, Pentwater, alternate delegate.

FRED A. REETZ, *Secretary*.

O. M. C. O. R. O.

The regular meeting of the O. M. C. O. R. O. Medical Society was held at Gaylord, December 13, 1932, at 3:30 P. M.

Previous to the business meeting, an enjoyable hour was spent by members of the Medical Society and District Nurses Association in viewing the movie films from Davis & Geck: (1) Relation of Absorbable Sutures to Wound Healing, and (2) Traumatic Surgery of the Extremities. Ten members and fifteen nurses attended.

The following officers were elected for 1933: President, Dr. A. S. McDowell; vice president, Dr. Ruey Ford; secretary and treasurer, Dr. C. G. Clippert. Delegate to State meeting, Dr. C. R. Keyport; alternate delegate, Dr. C. G. Clippert.

Communications were read, discussed and accepted. Dr. C. R. Keyport was appointed as a committee of one to act as medico-legal advisor.

The meeting adjourned and was followed by a banquet.

C. G. CLIPPERT, *Secretary*.

SAINT CLAIR COUNTY

A regular meeting of Saint Clair County Medical Society was held at Edgewater Inn, Port Huron, Michigan, Tuesday, January 3, 1933. Supper was served to twelve members at 6:15 p. m., and before the program of the evening began, twenty members were present.

The meeting was called to order at 7:35 p. m. with President McColl in the chair. The minutes of the preceding annual meeting were read and approved. Doctor Heavenrich, councillor of the Seventh District, announced that he had deemed it wise to postpone the district meeting announced for February 7, 1933, until some later date because of possible road conditions. President McColl read the suggestion contained in the monthly letter from the State Society with regard to a resolution to endorse the report of the minority of the Committee on the Cost of Medical Care. Doctor Heavenrich moved the adoption of such endorsement, supported by Doctor Derck. The resolution was adopted. President McColl then recommended the Society authorize him to appoint a committee to study the adoption of a new set of By-laws and a new Constitution. A motion by Doctor Waters, supported by Doctor Heavenrich, to this effect, was carried.

President McColl announced two standing committees as follows: State Legislative Committee—A. J. MacKenzie, M.D., Chairman, T. E. DeGurse, M.D., and J. F. Waltz, M.D.; Public Relations Committee, J. A. Attridge, M.D., Chairman, A. L. Callery, M.D., and R. A. Windham, M.D. President McColl then inquired of the Society whether the special committee having the matter of speakers for lay organization meetings in charge should be continued and without any protest he dismissed this committee. The Secretary read several communications. President McColl then called the attention of the Society to the advisability of early payment of dues and stated they must be paid before April 1, 1933.

Doctor Meredith then spoke upon the subject of erythema nodosum, expressing the opinion that this condition was the result of focal infection. The doctor covered the subject in a very thorough manner, outlining symptomatology and treatment. Doctor Battley addressed the Society upon the subject of pyelitis, especially in children. The speaker covered the subject in an interesting manner. Doctor Treadgold spoke upon sinus infection in children and infants and brought out some new thoughts and fine points. Doctor Cooper spoke upon the sub-

ject of industrial surgery and reported three interesting cases.

President McColl stated that there would be no discussion upon the subjects covered by the speakers. He voiced appreciation for the fine talks and thanked the speakers. He also announced the program for the next meeting and requested several members to be prepared upon some subject for the meeting of February 7, 1933. Adjourned.

At the annual meeting of the Society held December 20, 1932, at the Edgewater Inn, Port Huron, Michigan, the following officers and delegates were elected to serve during the year of 1933.

President, D. J. McColl, M.D.; vice president, H. O. Brush, M.D.; secretary-treasurer, George M. Kesi, M.D.; delegate to the State Society, A. L. Callery, M.D.; alternate delegate to the State Society, W. P. Derck, M.D.; trustees: A. J. MacKenzie, M.D., J. A. Attridge, M.D., and E. W. Meredith, M.D.

A regular meeting of the Society was held Tuesday, January 17, 1933, at Edgewater Inn, Port Huron, Michigan. Supper was served about 6:30 p. m. to eighteen members and guests and the meeting called to order by President McColl at 7:50 p. m., with twenty members and four guests in attendance. The minutes of the preceding meeting were read and approved.

Communications were read from Robert B. Kennedy, M.D., of Detroit, in which he accepted the invitation of the Society to be a guest on February 21, 1933, and selected as his subject, "Relief of Pain during Labor and the Treatment of Occiput Posterior"; from Olin West, M.D., of the American Medical Association, thanking the Society for a resolution adopted at our last meeting endorsing the minority report of the Committee on the Costs of Medical Care; from A. B. McGraw, M.D., Secretary of the Lectureship Foundation Committee of the Wayne County Medical Society inviting the members of our Society to attend the Beaumont Lectures to be given January 30 and 31, 1933, at the auditorium of the Wayne County Society in Detroit. The President called the attention of the members present to the last communication and hoped they would attend the lectures if possible.

President McColl announced the following committees: Membership—Chairman, George Waters, M.D., with A. B. Armsbury, M.D., and A. L. Callery, M.D.; Speakers' Committee—J. C. S. Battley, M.D., Chairman, with E. W. Meredith, M.D., and T. H. Cooper, M.D.; Committee for Constitution and By-laws—Chairman, W. P. Derck, M.D., with D. W. Patterson, M.D., and the Secretary.

The President introduced Dr. E. R. Witwer of Detroit, who addressed the Society upon the subject, "The Roentgen Findings in Parathyroidism." The speaker covered the subject from the year 1926 up to the present, giving both clinical and roentgenological signs and symptoms, and then presented a series of case histories with slides, in which he demonstrated the roentgenological findings of the granular disintegration, cystic degeneration and deformity of the skull, humerus, scapula, vertebral column, pelvis, femur and bones of the forearm. In several cases he demonstrated calcium regeneration of affected bones following parathyroidectomy or the removal of tumors from the parathyroid gland. Doctor Witwer presented his subject in a most interesting manner.

The President then introduced Dr. William A. Evans of Detroit, who addressed the Society upon "The Application of Roentgen Rays in the Treatment of Various Types of Malignant Disease." Be-

ginning with records of incidence of malignant disease in Saint Clair County and with his own hospital records of sex and distribution in malignant disease the speaker stated that every physician should be interested in the detection and proper treatment of early malignancy and that if the cases of malignant disease were evenly divided each physician in this county should have at least four or five cases under treatment. As between surgery alone and X-ray alone the speaker stated he believed in a combination of both in many cases, particularly deep seated malignant disease where surgery was at all feasible. He covered a series of cases of skin malignancy with lantern slides demonstrating each case before and after deep hypermassive doses given through openings in lead screens. The results, particularly the cosmetic results, were amazing. He also covered malignant growths in the thorax, showing slides before and after treatment. Doctor Evans' talk was enjoyed very much. Discussion was opened by Doctor E. W. Meredith and followed by Drs. Patterson, John Campbell of Brown City, Heavenrich, MacKenzie, and Smith, after which Drs. Witwer and Evans brought the discussion to a close. A rising vote of thanks was given the guest speakers before adjournment.

GEORGE M. KESI, *Secretary-Treasurer*.

SHIAWASSEE COUNTY

At the annual election of officers of Shiawassee County Medical Society on December 15, 1932, the result was as follows: President, Dr. W. B. Fillinger, Ovid; vice president, Dr. C. M. Wilcox, Owosso; secretary-treasurer, Dr. W. E. Ward, Owosso; delegate, Dr. I. W. Greene; alternate delegate, Dr. A. M. Hume; medico-legal representative, Dr. J. J. Haviland; Board of Directors, Drs. A. L. Arnold, Jr., C. A. Crane and W. F. Weinkauf. Dr. Ward has served this society as secretary-treasurer eighteen consecutive years.

A five-reel movie film entitled "Cancers of the Skin" was shown by Dr. A. L. Arnold, Jr.

The Owosso meeting being held at noon, Dr. Arnold and Dr. Ward took the film to St. Johns and showed it before the Clinton County Medical Society in the evening.

W. E. WARD, *Secretary-Treasurer*.

TUSCOLA COUNTY

The regular monthly medical meeting of the Tuscola Medical Society was held at Caro Community Hospital, January 5, 1933. There was approximately 85 per cent attendance. A lively interest and discussion of the problems of the medical profession of to-day took place.

A resolution was adopted unanimously to accept the Minority report of the Committee on the Costs of Medical Care, and to disapprove of the Majority report of the same committee.

A paper on Public Health and Education was given by Dr. E. C. Swanson of Vassar, which aroused a lively discussion and the appointment of a committee of three, including Drs. E. C. Swanson, N. J. Malloy and L. L. Savage to prepare a program of Public Health in Tuscola County.

I am asked by the Society to obtain the State Society's opinion and advice on the question of the use of the local newspapers as a means of promoting health education. We would appreciate any suggestions along this line.

LLOYD L. SAVAGE, M.D., *Secretary*.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

BAY COUNTY

The Bay County Auxiliary met at the home of Mrs. G. M. Brown on December 14, with a potluck supper at 6:30 p. m. There were about thirty members present. After the supper, we held our business meeting and election of officers for the coming year. Those elected to office are: President, Mrs. H. Payne Lawrence; first vice president, Mrs. C. M. Swantek; second vice president, Mrs. Roy C. Perkins; recording secretary, Mrs. A. L. Ziliak; corresponding secretary, Mrs. A. D. Allen; treasurer, Mrs. H. M. Gale.

We have decided to meet every month this year instead of every other month.

At our meeting in January, we will have a committee from the Medical Society, as they wish to have us take up some particular work, and this will be explained at that time.

After the business meeting, we did some hand work for the Civic League.

We are looking forward to a busy year, for there is much to be done and we must all bend our efforts to the good work.

RUTH M. ALLEN, *Corresponding Secretary.*

OAKLAND COUNTY

About thirty members of the Oakland County Medical Auxiliary met for a coöperative luncheon in the Casa Del Rey in Pontiac on December 16, 1932.

Dr. C. T. Ekelund talked on "Medical Economy" and Mrs. Robert H. Baker and Mrs. Chauncey Burke gave reports on articles from the medical journals. During the afternoon the members sewed on Red Cross garments.

(Mrs. R. H.) HELEN C. BAKER, *Publicity Chairman.*

OTTAWA COUNTY

On December 13, 1932, the Woman's Auxiliary of the Ottawa County Medical Society met to have luncheon with the doctors at the Presbyterian Church House, Grand Haven. While the doctors adjourned to a special room for their monthly meeting the ladies enjoyed a social afternoon. This auxiliary meets four times a year just for sociability. Mrs. Winters of Holland is the new president.

WAYNE COUNTY

A diversified array of activities were held during the month of December by the Woman's Auxiliary to the Wayne County Medical Society.

On Sunday afternoon, December 11, 1932, a musical program of unusual charm was presented for the pleasure of the Woman's Auxiliary and their friends in the Society's club rooms, when the Steinway grand piano was formally presented to the Wayne County Medical Society through Dr. H. Wellington Yates in behalf of the Woman's Auxiliary. Dr. H. Wellington Yates, President of the Wayne County Medical Society, formally accepted the Steinway grand on behalf of the membership. The Council, the Board of Trustees, and the House Committee, saying: "This splendid gift becomes a permanent memorial to the physicians' wives who are contributing to the success of the Woman's Auxiliary. It becomes a beautiful addition to our home, and as an aid to the expression of culture, will serve as a constant source of enjoyment. This token of your thoughtfulness and generosity should

be a stimulus to other woman's auxiliaries throughout the United States.

The artists who contributed entertainment were Mrs. Harriett Story Macfarlane, who gave a musical reading and also sang a group of very beautiful and interesting songs with Mrs. Morris D. Silver at the piano. Mrs. Macfarlane is an artist and singer of national fame. She is one of Detroit's favorite and beloved artists and is equally well known throughout the United States.

Mr. Harry A. McDonald, baritone soloist, rendered a group of delightful songs, with Mr. Carl Rupp at the piano. Mr. McDonald has a rich vocal quality often compared to Lawrence Tibbets'. Mr. Rupp is the musical director at station CKOK.

The board of directors were hostesses for tea at this affair, during which time Mrs. Claire Straith and Mrs. H. Wellington Yates poured. About one hundred and fifty persons attended this event. Members of the Auxiliary are planning one of these delightful occasions every month. This interesting program was presented through the efforts of that energetic and alert chairman of the program committee, Mrs. Frank Hartman. The next Musical will be held in the Wayne County club rooms on Sunday afternoon, January 29, 1933. The proceeds from these musicals will go towards maintaining the piano fund.

The last monthly meeting, which was held December 13, was a very interesting affair. Dr. Bruce gave a very instructive talk on "Modern Concepts of Medical Practice."

Mrs. Wm. O. Merrill very successfully presented two one-act plays. The first one was the Statue Scene of Pygmalion by Galatea, and she also presented a modern sketch which was a very exciting comedy.

The most attractive party sponsored by the Woman's Auxiliary was the Junior party which was held on Wednesday evening, December 28, 1932, in the Wayne County club rooms. It was a whirl of gaiety. About eighty Juniors were in attendance, which added much distinction to the Wayne County club rooms. A real magician was there who could produce all sorts of mysterious thrills. And there was dancing, ping pong, billiards and other games. The dance hall was very beautifully decorated with balloons. In one of the club rooms was a very large and attractive Christmas tree. The tea table was decorated with a miniature Christmas tree and tall red tapers with Santa Claus and his reindeers and many other things emblematic of Christmas. The grand march was led by Miss Susan Luce, daughter of Dr. and Mrs. Henry Luce. An invitation was extended to all Juniors whose parents were members of the Society. Each Junior was requested to bring a companion. There were card tables set up on the second floor for the chaperons. On the Patrons list were Dr. and Mrs. C. L. Straith and Dr. and Mrs. E. G. Minor.

The Auxiliary begins the New Year with another interesting list of activities. The regular monthly meeting will be held on Tuesday, January 10, 1933, at which time Mr. Ward Culver, Attorney Councillor, will speak on the subject, "Law and Medicine." Miss Edna Penticoff very graciously will render a group of songs. Tea and a social hour will follow, with Mrs. Ira C. Downer and Mrs. L. B. Ashley acting as hostesses.

Another interesting function planned for early in the year is the joint Bridge Tea which the Press Committee and the Legislative are sponsoring to raise funds for the piano fund, welfare fund and the student loan fund. This party will be held on Wednesday, January 11, 1933, in the Wayne County club rooms at 2:00 P. M.

The Hygeia Committee are raising funds to place

Hygeia in our libraries and parent teacher associations. They reported that Hygeia is on file in eighteen Detroit schools and in six women's clubs.

The Woman's Auxiliary to the Miamonides Medical Society has contributed \$25.00 to the piano fund for the Woman's Auxiliary to the Wayne County Medical Society.

The Welfare Committee took care of fifteen needy families over the holidays. They supplied baskets full of groceries, toys and clothing for these families. The ladies of the Auxiliary meet in the club rooms on the first Tuesday of every month to sew for the needy school children, from 10 A. M. until 3 P. M.

The outstanding social event looked forward to by the Auxiliary is the Donor De Luxe luncheon, which will be held Feb. 1 at the Hotel Statler. Mrs. Perry Burnstine and her committee are very actively interested making preparations for this gala event. Members on all the committees are very busy earning their \$5.00 to attend this delightful affair.

The membership committee reported enrolling forty-five new members since the distribution of the Year Book.

MRS. LESLIE T. HENDERSON,
Publicity Chairman.

COMMUNICATIONS

December 31, 1932.

Dear Dr. Warnshuis:

On Sunday afternoon, January 8, there will come to you over the network of the National Broadcasting Company, through the stations and at the time printed on the back of this letter, the first of a series of important broadcasts under the auspices of E. R. Squibb & Sons.

This campaign is planned primarily with a view to emphasizing the conclusion of a large number of physicians that the general practitioner must be maintained in the central place of medical practice as the best means of meeting the agitation concerning the "costs of medical care."

This view was sponsored by the Commission of Medical Education, which urges that: "Emphasis must be kept constantly upon the fact that only through a sufficient number of properly trained physicians can a community expect to meet its responsibility for the care and prevention of illness, and the protection of health."

Convinced that the family doctor, with recourse to the specialist and to the surgeon, when indicated, is the most efficient and least expensive source of medical care, the house of E. R. Squibb & Sons has taken this means of bringing the indispensable family physician to a greater appreciation by the public.

These broadcasts will also feature great moments in medicine, reflecting dramatically such epoch-making achievements as Beaumont's work on digestion, the first use of ether as a general anesthetic, the famous operation performed by Ephraim McDowell, and other similar outstanding advances. In order to make this educational program more acceptable to the general public, we have added interesting musical features, which, we feel confident, will please our vast audience.

We respectfully invite you and every member of your family to listen in on the first broadcast Sunday afternoon, January 8, at the hour and through your station printed on the back of this letter, and to listen in on every succeeding broadcast—always

on Sunday afternoons, at the same hour and through the same station.

In conclusion, we would urgently request that you return to us, after you have heard the broadcast, the enclosed postcard, ready for mailing (we pay postage here), with such comment or suggestions as may occur to you, or write us, if you will, at greater length. This will aid us in making this campaign serve in the best possible way the great cause, which we believe you have at heart.

Faithfully yours,

E. R. SQUIBB & SONS.
John F. Anderson, M.D., Director.

AN ADVERTISER

Indianapolis, Indiana.
December 30, 1932.

Dear Dr. Warnshuis:

In the final analysis, all business is a profession of faith. It begins with the faith of an individual; it establishes faith among those with whom it has commercial relations. It builds up and reciprocates the faith of its employees. It looks ahead continually with faith and confidence in the future.

It is with this thought in mind as we are starting the New Year that we make known to you our appreciation for your good will and coöperation during the trying year just closed and express to you our sincere wish that the year ahead will justify in a large measure the faith that we have and that we hope that you have, and that is so essential to the return of sound business growth and prosperity.

Very truly yours,

ELI LILLY AND COMPANY,
John S. Wright, Director,
Advertising Department.

OF GENERAL MEDICAL AND SURGICAL INTEREST

"HEALTH LEVEL" OF SPECIES DETERMINES EVOLUTION RATE

The evolution of a species is determined in considerable measure by what might be termed its general health level. The rate at which it develops new features, like the rate at which the individual grows, is largely a measure of the rate of its metabolism.

This is the theory developed in an article in "Science" by Dr. Carroll Lane Fenton of the University of Buffalo. Dr. Fenton was led to his conclusions by studies on a large series of fossil sea-shells, called brachiopods. These, by the simplicity or elaborateness of their markings, indicated at once the evolutionary status and the degree of vigor possessed by the animals that formed them.

In any series of shells, Dr. Fenton found, the animals started out with very simple and austere ideas of exterior decoration. As the millennia rolled by, the markings became more elaborate, reaching a climax indicating full vigor. Then a decline would set in, marked by the development of bizarre decoration schemes and at the same time by the inability of the animals to recover from injury and repair breakages as quickly and completely as their ancestors had been able to in the palmier days of the species. After that, extinction.

Dr. Fenton states that in all his series he has found only indications of a straight-through, determinate course of evolution. There is no indication that the effects were brought about by changes in

environment, and there is no sign of the operation of natural selection considered by Darwin to be necessary in bringing about evolutionary changes.—*Science Service.*

USE OF VEIN LIGATION IN TREATMENT OF ARTERIOSCLEROTIC AND DIABETIC GANGRENE

HERMAN E. PEARSE, JR., Rochester, N. Y., emphasizes the fact that in obliterative vascular disease of the extremities, operations on the blood vessels are justifiable but are essentially palliative since they do not affect the cause of the original disorder. The effect of venous obstruction in the presence of arterial insufficiency makes it a desirable procedure in appropriate cases. Thirty-one cases in which this operation was performed are collected from the literature and twenty additional ones, followed for a year or more, are reported. Analysis of these fifty-one unselected cases shows that approximately half were benefited, while leg amputation was done in the remainder after a variable period of improvement. A basis for selection of cases is given which creates three groups: (1) those which show a hopelessly damaged circulation, requiring leg amputation; (2) those which result from infection and require only treatment of the local lesion, and (3) those in which there is a fair circulation, with a patent popliteal artery but absent peripheral pulses, and in which conservative treatment including vein ligation should be given. Analysis of the suitable cases shows that in 40 per cent leg amputation was needed within a year, while 60 per cent had a satisfactory result with return of function. Vein ligation should be considered as only a part of the care of these patients. Its use in appropriate cases definitely increases the efficiency of the circulation of the extremity and helps to avoid leg amputation.—*Journal A. M. A.*

HEMOPHILIA

During the last two years CARROLL LAFLEUR BIRCH, Chicago, has had an opportunity to study thirty-five persons with hemophilia. They range in age from newly born to 52 years. Seven of these cases were sporadic, while twenty-eight had a definite family history. The author has traced the histories of twenty families which consist of from four to seven generations. An analysis of these histories shows that persons with hemophilia have more daughters than sons, while transmitters' have more sons than daughters. Over 71 per cent of the transmitters' sons had hemophilia. Only from 10 to 15 per cent of the transmitters' daughters had at least one normal son and no hemophiliac sons. Of the hemophiliac daughters, only from 3 to 7 per cent had at least one normal son and no hemophiliac sons. Nineteen patients have been receiving ovarian therapy for more than six months. Nine of these showed a good response, and nine showed definite but less marked improvement, while the condition of one remained unchanged. The response was both general and specific. The general improvement was shown by an increase in weight, hemoglobin and vitality. The specific response was shown by a decrease in number and severity of the hemorrhages and a lowering of the coagulation time. The prolongation of the coagulation time in hemophilia is due to increase in the resistance of the blood platelets, for when this resistance is overcome mechanically, the blood clots in normal time. When certain ovarian preparations are added to hemophiliac blood in a test tube, the coagulation time is decreased to one-fourth or one-half the time of the untouched control.—*Journal A. M. A.*

CONTRAINDICATIONS TO CESAREAN SECTION

Willard R. Cooke, Galveston, Texas, believes that it is apparent to the careful student of the problem of cesarean section that a high percentage of the postoperative deaths occur in cases in which contraindications to the operation are present. In other words, the mortality following cesarean section would be greatly reduced if the contraindications were generally recognized and the operation avoided when contraindicated. Careful students of the problem universally recognize as contraindications: (1) the existence of infection, actual or potential, in the genital tract; (2) the lack of a valid indication for the operation, and, almost universally, (3) the convulsive stage of eclampsia. Pain, fatigue, fear or the safety of the child must rarely be considered as excuses for cesarean section. The properly conducted test of labor, analgesia and an adequate allowance of time will eliminate most of the supposedly necessary sections. Even in unskilled hands the procedures alternative to cesarean section carry a total maternal mortality risk from shock, hemorrhage and infection less than that of cesarean section performed in the presence of contraindications.—*Journal A. M. A.*

TUMORS OF PELVIC BONES

Clarence B. Francisco, Kansas City, Mo., reports five cases of tumors of the pelvic bones and from his observations he concludes that in cases in which the diagnosis is obscure, in either children or adults, the possibility of a malignant involvement of the bones of the pelvis should be kept in mind. The prognosis of certain well defined tumors of the pelvic bones cannot be predicted with any degree of certainty. Benign tumors of the pelvic bones actually occur relatively infrequently, and every tumor in this region should be looked on with suspicion. Radical resection of a chondroma of the pelvis should be carried out early in an attempt to prevent malignant degeneration in later years.—*Journal A. M. A.*

RELATIONSHIP OF VITAMIN A TO RESPIRATORY INFECTIONS IN INFANTS

L. H. Barenberg and J. M. Lewis, New York, present the results of an investigation to ascertain whether any relationship exists between the Vitamin A content of the diet and the occurrence of respiratory infections. The incidence and severity of these infections were determined in four groups of infants, receiving various quantities of Vitamin A in their diets. The first group comprised nineteen infants receiving partly skimmed milk; the second, ninety-four infants receiving pasteurized milk and 20 drops of viosterol; the third, eighty-five infants receiving pasteurized milk and 3 teaspoonfuls of standardized cod liver oil, and the fourth, six infants receiving pasteurized milk and 6 teaspoonfuls of cod liver oil. All infants were given orange juice at 6 weeks, butter at 6 months and vegetables at 8 months of age. Thus the four diets represented a small, a moderate, a large and a maximum amount of Vitamin A. These infants were observed in an institution, for periods varying from four to twelve months. Respiratory infections were classified as mild, moderate or severe (purulent otitis media, mastoiditis and pneumonia being classed as severe infections). The results may be summed up in a few words: No significant difference in incidence or severity of respiratory infections was noted in the four groups of infants. Thus the group which received the largest daily amount of Vitamin A, through the addition of cod liver oil, was not protected against respiratory infections to a greater degree than the other groups.—*Journal A. M. A.*

THE DOCTORS' LIBRARY

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 16, No. 2. (Chicago Number—September, 1932.) Octavo of 272 pages with 47 illustrations. Per clinic year, July, 1932, to May, 1933. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1932.

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 16, No. 3. (University of California Number, November, 1932.) Octavo of 195 pages with 31 illustrations. Per clinic year, July, 1932, to May, 1933. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1932.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 12, No. 6. **INDEX NUMBER.** (Philadelphia Number, December, 1932.) 280 pages with 110 illustrations. Per clinic year, February, 1932, to December, 1932. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1932.

OFFICE SURGERY. Everyday Practice Series. F. Beckman, M.D., 401 pages. 94 illustrations. J. B. Lippincott Co., Philadelphia, 1933. \$5.00.

A rather primitive primer of some minor and even major surgical procedures that every senior or interne is informed upon. The book presents nothing new and much that is old, and some that is obsolete. It can occupy space on a desk or in a book case but beyond that it will be of little use to the doctor.

F. C. W.

OUTLINE OF PREVENTIVE MEDICINE FOR MEDICAL PRACTITIONERS AND STUDENTS. Prepared Under the Auspices of The Committee on Public Health Relations, New York Academy of Medicine; 24 Contributors; Editorial Committee—Frederic E. Sondern, Charles Gordon Heyd, and E. H. L. Corwin; Second Edition Revised and Enlarged. Paul B. Hoeber, Inc., New York, 1931. Price \$5.00.

This little work fulfills an important place in medical literature. It is not only a book useful to all interested in preventive medicine, but it will appeal to the intelligent lay reader as well. There are twenty-four chapters which for the most part deal with the relation of the various medical and surgical specialties to the idea of preventive medicine. In the preface it is emphasized that prevention of disease follows at least two lines of action, namely the preventing of the contraction of certain diseases and in certain diseases contracted the prevention of the development of serious symptoms. It is likewise important that the layman understand the object of preventive medicine in as much as coöperation on the part of the layman is as important as the aggressive work of the physician.

RADIOLOGIC MAXIMS. Harold Swanberg, B.Sc., M.D., F.A.C.P., Editor of The Radiological Review, Quincy, Illinois. With a foreword by Henry Schmitz, A.M., M.D., LL.D., F.A.C.S., Professor of Gynecology and Head of the Department, Loyola University School of Medicine. Cloth. Price, \$1.50. Pages 126. Quincy, Illinois: Radiological Review Publishing Company, 1932.

This little work is made up of short sentences, some of them epigrammatic, and paragraphs relating to the various fields, diagnostic and therapeutic of radiology. The author has arranged them into an orderly classification as indicated in the table of contents. He justifies the idea of the book by quotations from Horace, "Whatever you teach be brief, for minds grasp with readiness what is said shortly and retain it firmly." And Sophocles, "Many wise things are bound up in short speech." The little work is deserving of a place in the medical library of every physician.

THE REAL MEANING OF SOCIAL INSURANCE, ITS PRESENT STATUS AND TENDENCIES. By Hugh H. Wolfenden, Fellow of the Institute of Actuaries, Great Britain; Fellow of the Actuarial Society of America; Fellow of the Royal Statistical Society. Toronto: The Macmillan Company of Canada, Limited, at St. Martin's House. 1932. Price \$2.00.

While from the title a work like this might seem foreign to medicine we know of no subject that concerns physicians more than this. Social insurance may mean the salvation of the medical profession financially or it may mean the elimination of large numbers of them and the placing of the remainder under lay management and direction. This book has been strongly recommended by Dr. W. H. Marshall of Flint, who is at present concerned in the social survey being carried out under the authority of the Michigan State Medical Society. The author of the work is introduced to us as an independent actuary of high attainment who is eminently qualified to make an impartial study of social insurance. The little work consists of thirteen chapters, the early chapters of which make up the history of the idea of insurance. Then we have a chapter on The Causes and Extent of Dependency and Poverty. Chapter VI deals with The Financing and Cost of State Plans. Chapter VII The Problem of Medical Care. Chapter VIII The Special Problems of Unemployment. In chapters X and XI the author discusses the pros and contras of state insurance. The 227 pages comprising this work will be found of inestimable value to everyone in the active practice of medicine in as much as a perusal of them will give him an intelligent viewpoint on what is a very vital subject for the American medical profession.

STREPTOCOCCIC MENINGITIS WITH INTRACAROTID TREATMENT AND RECOVERY

MATTHEW S. ERSNER and THEODORE H. MENDELL, Philadelphia, present two cases of hemolytic streptococcic meningitis of otitic origin in which cure by intracarotid treatment was obtained. Mastoidectomy was performed in both, and blood transfusion, frequent lumbar taps and antistreptococcic serum were used as adjuncts in the treatment. Cerebral dehydration was used to great advantage in both cases. Energetic nasal treatment is essential if a successful outcome is to be attained. Forty-six cases of streptococcic meningitis with recovery are listed in the literature prior to this report. Whenever meningitis complicates an otologic condition, intracarotid therapy after the method of Kolmer is advocated early without delay, along with other treatment, as a simple harmless measure offering some hope in the treatment of an almost hopeless disease.—*Journal A. M. A.*

ABNORMAL UTERINE BLEEDING IN BLOOD DYSCRASIAS

MILTON E. KAHN, Buffalo, reports four cases in which abnormal uterine bleeding was the first and most prominent symptom of a blood dyscrasia. Abnormal uterine bleeding is sometimes the primary and most important symptom of an underlying blood dyscrasia. Menstrual abnormality has been observed in practically all the blood dyscrasias, including secondary anemia. Thrombocytopenic purpura, above the other dyscrasias, seems most commonly accompanied by excessive, prolonged and irregular uterine bleeding. Careful and complete blood study is often of diagnostic importance in cases of disturbed menstruation for which no obvious pelvic lesion is responsible.—*Journal A. M. A.*